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## Employment

### Lecturer

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1 Oct 2024 → 30 Sept 2027

## Research outputs

### **Techno-economic analysis of sustainable biofuel production from whole olive waste**

Jafari-Gohargan, M., Mohammadi, M., Mehrabani-Zeinabad, A. & Karimi, K., 1 Mar 2026, In: Fuel. 407, Part D, 15 p., 137530.

### **Sustainable conversion of furfural residues to bioenergy: supporting environmental management via life cycle assessment**

Azarakhsh, F. A. S., Madadi, M., Galán-Martín, Á., Denayer, J. F. M., Liu, D. & Karimi, K., 15 Jan 2026, In: Energy Conversion and Management. 348, Part C, 14 p., 120751.

### **One-pot biorefining of ionic liquid-pretreated corn stover and peanut shell using in-house prepared lignocellulolytic enzymes**

Yousuf, A., Khushk, I., Ahmed, F., Jatt, A. N., Denayer, J. F. M., Karimi, K. & Qureshi, A. S., 1 Jan 2026, In: Renewable Energy. 256, B, 12 p., 124016.

### **Scalable Lignin Monomer Production Via Machine Learning-Guided Reductive Catalytic Fractionation of Lignocellulose**

Madadi, M., Kargaran, E., Hashemi, S. S., Sun, C., Denayer, J. F. M., Karimi, K., Sun, F. & Gupta, V. K., 13 Nov 2025, In: Advanced Science. 12, 42, 15 p., e10496.

### **Sustainable and efficient valorization of sugarcane bagasse: Integrated conversion of holocellulose into acetone, butanol, and ethanol**

Mohagheghian, M., Zilouei, H. & Karimi, K., 2 Nov 2025, In: Industrial Crops and Products. 236, 11 p., 122015.

### **Transformative biorefinery model for biomass valorization into biofuel and renewable platform chemicals**

Madadi, M., Elsayed, M., Song, G., Razieh, S.-A., Denayer, J. F., Kargaran, E., Azad, S. A., Karimi, K., Sun, F. & Gupta, V. K., Nov 2025, In: Journal of Energy Chemistry. 110, p. 109-123 15 p.

### **High-efficiency bioenergy production from acorn waste through a sustainable biorefining**

Mahmoudi, Z., Mirmohamadsadeghi, S., Denayer, J. F. M., Okoro, O. V., Shavandi, A. & Karimi, K., 30 Oct 2025, In: Energy. 335, 41 p., 138172.

### **A critical review of ultrasonication as a green technology for enhanced biomass valorization in bioethanol and biogas production**

Momayez, F., Okoro, O. V., Shavandi, A., Martín, C., Denayer, J. & Karimi, K., Aug 2025, In: Process Safety and Environmental Protection. 200, p. 1-18 18 p., 107334.

**Machine learning-based predictive modeling and optimization: Artificial neural network-genetic algorithm vs. response surface methodology for black soldier fly (*Hermetia illucens*) farm waste fermentation**

Okoro, O. V., Hippolyte, D. E. C., Nie, L., Karimi, K., Denayer, J. F. M. & Shavandi, A., Jun 2025, In: Biochemical Engineering Journal. 218, 11 p., 109685.

**Life cycle assessment of bioenergy and value-added biochemical production from *Nizimudinia zanardini* brown macroalgae**

Hashemi, M., Mirmohamadsadeghi, S., Khoshnevisan, B., Galán-Martín, Á., Denayer, J. F. M. & Karimi, K., 10 May 2025, In: Science of the Total Environment. 976, p. 1-16 16 p., 179225.

**Integrated biorefining of rapeseed straw for ethanol, biogas, and mycoprotein production**

Abbasi-Riyakhuni, M., Hashemi, S. S., Denayer, J. F. M., Aghbashlo, M., Tabatabaei, M. & Karimi, K., 15 Feb 2025, In: Fuel. 382, p. 1-12 12 p., 133751.

**Synergizing blockchain and internet of things for enhancing efficiency and waste reduction in sustainable food management**

Zhang, Y., Gupta, V. K., Karimi, K., Wang, Y., Yusoff, M. A., Vatanparast, H., Pan, J., Aghbashlo, M., Tabatabaei, M. & Rajaei, A., Feb 2025, In: Trends in Food Science and Technology. 156, 15 p., 104873.

**Analysis of the Technical and Economic Viability of Upcycling Sustainable Fish Waste for Bioproduct Production**

Okoro, O. V., Nie, L., Denayer, J. F. M., Karimi, K. & Shavandi, A., 2025, In: Circular Economy and Sustainability. p. 2387-2405 27 p.

**Bioprocess Optimization of Lobster Waste Treatment Using *Lactococcus lactis* and *Lactobacillus paracasei* for N-polysaccharide Extraction**

Okoro, O. V., Khalid, E., Amenaghawon, A., Nie, L., Karimi, K., Claeys, P. & Shavandi, A., 20 Dec 2024, 36 p. (ChemRxiv).

**Life cycle analysis of apple pomace biorefining for biofuel and pectin production**

Azarakshsh, F. A. S., Ziloue, H., Ebrahimian, F., Khoshnevisan, B., Denayer, J. F. M. & Karimi, K., 15 Nov 2024, In: Science of the Total Environment. 951, 18 p., 175780.

**Comparative analysis of bioenergy and mycoprotein production from apple pomace: Strategies for enhancement and environmental benefits**

Abbasi-Riyakhuni, M., Hashemi, S. S., Alavijeh, R. S., Mojoodi, S., Shavandi, A., Okoro, O. V., Tabatabaei, M., Aghbashlo, M., Denayer, J. F. M. & Karimi, K., Oct 2024, In: Process Safety and Environmental Protection. 190, p. 123-134 12 p.

**Enhanced lipase production from ionic liquid tolerant *Klebsiella aerogenes* using mustard oilcake for efficient biodiesel production**

Abro, A. A., Qureshi, A. S., Khushk, I., Jatt, A. N., Ali, C. H., Karimi, K., Rajper, S. B. & Khan, M. S., Oct 2024, In: Renewable Energy. 232, 12 p., 121143.

**Sustainable biorefining of *Chlorella vulgaris* into protein, lipid, bioethanol, and biogas with substantial socioeconomic benefits**

Shafiei-Alavijeh, R., Eppink, M., Denayer, J. F. M., Peeters, E. & Karimi, K., 15 Aug 2024, In: Energy Conversion and Management. 314, 11 p., 118683.

**The technical, economic, and environmental assessment of solvothermal liquefaction processes: An experimental and simulation study on the influence of solvent reichert parameter**

Okoro, O. V., Romano, L., Karimi, K., Nie, L., Gunduz, O. & Shavandi, A., Aug 2024, In: Chemical Engineering Research and Design. 208, p. 380-390 11 p.

**Enhanced biobutanol production with sustainable Co-substrates synergy from paper waste and garden waste with municipal biowaste**

Farmanbordar, S., Javid, A., Amiri, H., Denayer, J. F. M. & Karimi, K., Jul 2024, In: Biomass and Bioenergy. 186, 27 p., 107262.

**Enhancing Biogas Production from Rice Straw through Combined Mesophilic Aerobic Digestion and Sodium Carbonate Pretreatment**

Karimi, K., Karami, K. & Denayer, J., Jun 2024.

**Improvement of biohydrogen production from rice straw hydrolysate by green-self-prepared nano-silica**

Mojoodi, S., Zilouei, H. & Karimi, K., 1 May 2024, In: *Fuel*. 363, 11 p., 130887.

**A critical review of sustainable biorefineries utilizing high-solid processing for industrial crop lignocellulosic wastes valorization**

Shafiei-Alavijeh, R., Aghbashlo, M., Tabatabaei, M., Denayer, J. F. M. & Karimi, K., May 2024, In: *Industrial Crops and Products*. 211, 16 p., 118236.

**Techno-economic Analysis of Vacuum Pressure Swing Adsorption Process for a Sustainable Upgrading of Biogas**

Azadi Tabar, M., Maghsoudi, H., Karimi, K., Hosseini, S. S., Gholami, M. & Denayer, J., 15 Apr 2024, In: *Journal of Cleaner Production*. 450, 1, 13 p., 141853.

**Critical impacts of energy targeting on the sustainability of advanced biobutanol separation**

Karimi, K., Khoshnevisan, B. & Denayer, J., 1 Mar 2024, In: *Biofuel Research Journal*. 11, 1, p. 1999-2012 14 p.

**Environmental impact assessment of a novel third-generation biorefinery approach for astaxanthin and biofuel production**

Rabbani, M., Hosseini, A., Karim, M. A., Fahimi, A., Karimi, K. & Vahidi, E., 20 Feb 2024, In: *Science of the Total Environment*. 912, 9 p., 168733.

**Sustainable biorefinery development for valorizing all wastes from date palm agroindustry**

Shokrollahi, S., Shavandi, A., Valentine Okoro, O., Denayer, J. F. M. & Karimi, K., 15 Feb 2024, In: *Fuel*. 358, 10 p., 130291.

**Starch biocomposites preparation by incorporating organosolv lignins from potato crop residues**

Zolfaghari, S., Soltaninejad, A., Okoro, O. V., Shavandi, A., Denayer, J. F. M., Sadeghi, M. & Karimi, K., Feb 2024, In: *International Journal of Biological Macromolecules*. 259, 2, p. 1-13 13 p., 129140.

**Bioethanol Production**

Chisti, Y. & Karimi, K., 1 Jan 2024, *Encyclopedia of Sustainable Technologies, Second Edition: Volumes 1-4*. Elsevier, Vol. 1-4. p. V3:279-V3:294

**Machine learning-enabled analysis of product distribution and composition in biomass-coal co-pyrolysis**

Shafizadeh, A., Shahbeik, H., Rafiee, S., Fardi, Z., Karimi, K., Peng, W., Chen, X., Tabatabaei, M. & Aghbashlo, M., 1 Jan 2024, In: *Fuel*. 355, 1, p. 1-18 18 p., 129464.

**Efficient bioremediation of distillery and dairy wastewaters: A three-stage biorefinery for high-quality aquaculture feed and bioenergy generation**

Hashemi, S. S., Abbasi-Riyakhuni, M., Denayer, J. F. M., Tabatabaei, M., Aghbashlo, M. & Karimi, K., Dec 2023, In: *Process Safety and Environmental Protection*. 180, p. 566-574 9 p.

**Production of chemicals and utilities in-house improves the environmental sustainability of phytoplankton-based biorefinery**

Kiehadroudzinezhad, M., Hosseinzadeh-Bandbafha, H., Karimi, K., Madadi, M., Chisti, Y., Peng, W., Liu, D., Tabatabaei, M. & Aghbashlo, M., 15 Nov 2023, In: *Science of the Total Environment*. 899, 15 p., 165751.

**Assessing the environmental impacts of furfural production in a poplar wood biorefinery: A study on the role of mannitol concentration and catalyst type**

Khounani, Z., Abdul Razak, N. N., Hosseinzadeh-Bandbafha, H., Madadi, M., Sun, F., Fattah, I. M. R., Karimi, K., Gupta, V. K., Aghbashlo, M. & Tabatabaei, M., 1 Nov 2023, In: *Industrial Crops and Products*. 203, 1, p. 1-16 16 p., 117230.

**A critical review on biodegradable food packaging for meat: Materials, sustainability, regulations, and perspectives in the EU**

Siddiqui, S. A., Sundarsingh, A., Bahmid, N. A., Nirmal, N., Denayer, J. F. M. & Karimi, K., Sept 2023, In: Comprehensive Reviews in Food Science and Food Safety. 22, 5, p. 4147-4185 39 p., 13202.

**Integrated pretreatment of poplar biomass employing p-toluenesulfonic acid catalyzed liquid hot water and short-time ball milling for complete conversion to xylooligosaccharides, glucose, and native-like lignin**

Madadi, M., Liu, D., Qin, Y., Zhang, Y., Karimi, K., Tabatabaei, M., Gupta, V. K., Aghbashlo, M., Zahoor & Ali, S. S., Sept 2023, In: Bioresource technology. 384, 1, p. 1-10 10 p., 129370.

**Optimizing the subcritical water valorization of insect (*Hermetia illucens* L.) farming waste for biodiesel production**

Okoro, O. V., Preat, V., Karimi, K., Nie, L., Debaste, F. & Shavandi, A., Aug 2023, In: Chemical Engineering Research and Design. 196, p. 413-426 14 p.

**Efficient bioenergy recovery from different date palm industrial wastes**

Shokrollahi, S., Denayer, J. F. M. & Karimi, K., Jun 2023, In: Energy. 272, 1, p. 1-12 12 p., 127057.

**Biorefining of corn stover for efficient production of bioethanol, biodiesel, biomethane, and value-added byproducts**

Alavijeh, R. S., Shahvandi, A., Okoro, O. V., Denayer, J. F. M. & Karimi, K., 1 May 2023, In: Energy Conversion and Management. 283, 1, p. 1-11 11 p., 116877.

**A biorefinery platform to valorize organic fraction of municipal solid waste to biofuels: An early environmental sustainability guidance based on life cycle assessment**

Ebrahimian, F., Khoshnevisan, B., Mohammadi, A., Karimi, K. & Birkved, M., May 2023, In: Energy Conversion and Management. 283, 1, p. 1-16 16 p., 116905.

**A novel integrated biorefinery approach for apple pomace valorization with significant socioeconomic benefits**

Borujeni, N. E., Alavijeh, M. K., Denayer, J. F. M. & Karimi, K., May 2023, In: Renewable Energy. 208, 1, p. 275-286 12 p., 12.

**Evaluation of apple pomace biochemical transformation to biofuels and pectin through a sustainable biorefinery**

Vaez, S., Karimi, K., Denayer, J. F. M. & Kumar, R., May 2023, In: Biomass and Bioenergy. 172, 1, p. 1-11 11 p., 106757.

**Sustainable lignocellulose fractionation by integrating p-toluenesulfonic acid/pentanol pretreatment with mannitol for efficient production of glucose, native-like lignin, and furfural**

Madadi, M., Elsayed, M., Sun, F., Wang, J., Karimi, K., Song, G., Tabatabaei, M. & Aghbashlo, M., Mar 2023, In: Bioresource technology. 371, 11 p., 128591.

**A critical review on pretreatment and detoxification techniques required for biofuel production from the organic fraction of municipal solid waste**

Ebrahimian, F., Denayer, J. F. M., Mohammadi, A., Khoshnevisan, B. & Karimi, K., Jan 2023, In: Bioresource technology. 368, 12 p., 128316.

**The critical impacts of anion and cosolvent on morpholinium ionic liquid pretreatment for efficient renewable energy production from triticale straw**

Mehrizi, A. A., Tangestaninejad, S., Denayer, J. F. M., Karimi, K. & Shafiei, M., Jan 2023, In: Renewable Energy. 202, p. 686-698 13 p.

**Sustainable utilization and valorization of potato waste: state of the art, challenges, and perspectives**

Khanal, S., Karimi, K., Majumdar, S., Kumar, V., Verma, R., Bhatia, S. K., Kuca, K., Esteban, J. & Kumar, D., 2023, (Accepted/In press) In: Biomass Conversion and Biorefinery. 14, p. 23335-23360 26 p., 13399.

**Innovative biorefineries for cleaner waste textile management towards circular economy: Techno-economic analysis**

Farahmandpour, R., Karimi, K., Denayer, J. F. M. & Shafiei, M., 10 Dec 2022, In: Journal of Cleaner Production. 378, 134500.

**Improving biogas production from different parts of spruce tree using leading pretreatments**

Rasaeian, N., Mirmohamadsadeghi, S., Denayer, J. F. M. & Karimi, K., 1 Dec 2022, In: Fuel. 329, 125539.

**Positive role of non-catalytic proteins on mitigating inhibitory effects of lignin and enhancing cellulase activity in enzymatic hydrolysis: Application, mechanism, and prospective**

Madadi, M., Song, G., Sun, F., Sun, C., Xia, C., Zhang, E., Karimi, K. & Tu, M., Dec 2022, In: Environmental Research. 215, 1, p. 1-18 18 p., 114291.

**The Relationship between Structural Features of Lignocellulosic Materials and Ethanol Production Yield**

Bay, M. S., Eslami, F. & Karimi, K., Dec 2022, In: Designs. 6, 6, 22 p., 119.

**Biomethane and biodiesel production from sunflower crop: A biorefinery perspective**

Ebrahimian, E., Denayer, J. F. M., Aghbashlo, M., Tabatabaei, M. & Karimi, K., Nov 2022, In: Renewable Energy. 200, p. 1352-1361 10 p.

**Production of astaxanthin, ethanol and methane from Chromochloris zofingiensis microalga in an integrated biorefinery**

Mirzaei, D., Jazini, M., Rahimi, M., Mahdieh, M. & Karimi, K., Nov 2022, In: Algal Research. 68, 10 p., 102905.

**Isolation and characterization of lignin-rich particles as byproducts of bioethanol production from wheat straw to reinforce starch composite films**

Roostazadeh, R., Behzad, T. & Karimi, K., 15 Oct 2022, In: Industrial Crops and Products. 186, 10 p., 115175.

**Effect of pressure on bimethanation process and spatial stratification of microbial communities in trickle bed reactors under decreasing gas retention time**

Ebrahimian, F., De Bernardini, N., Tsapekos, P., Treu, L., Zhu, X., Campanaro, S., Karimi, K. & Angelidaki, I., Oct 2022, In: Bioresource technology. 361, 12 p., 127701.

**Valorization of cheese whey to eco-friendly food packaging and biomethane via a biorefinery**

Zolfaghari, S., Hashemi, S. S., Karimi, K. & Sadeghi, M., 15 Sept 2022, In: Journal of Cleaner Production. 366, 9 p., 132870.

**One-step lignocellulose fractionation using acid/pentanol pretreatment for enhanced fermentable sugar and reactive lignin production with efficient pentanol retrievability**

Madadi, M., Zahoor, Song, G., Karimi, K., Zhu, D., Elsayed, M., Sun, F. & Abomohra, A., Sept 2022, In: Bioresource technology. 359, 10 p., 127503.

**Potato peel waste biorefinery for the sustainable production of biofuels, bioplastics, and biosorbents**

Ebrahimian, F., Denayer, J. F. M. & Karimi, K., Sept 2022, In: Bioresource technology. 360, 127609.

**Coproduction of hydrogen, butanol, butanediol, ethanol, and biogas from the organic fraction of municipal solid waste using bacterial cocultivation followed by anaerobic digestion**

Ebrahimian, F., Karimi, K. & Angelidaki, I., Jul 2022, In: Renewable Energy. 194, 1, p. 552-560 9 p., 9.

**A comprehensive review on bioethanol production from corn stover: Worldwide potential, environmental importance, and perspectives**

Aghaei, S., Karimi Alavijeh, M., Shafiei, M. & Karimi, K., Jun 2022, In: Biomass and Bioenergy. 161, 13 p., 106447.

**Different bioreactor configurations for biogas production from sugarcane vinasse: A comprehensive review**

Kiani, M. K. D., Parsaee, M., Ardebili, S. M. S., Reyes, I. P., Fuess, L. T. & Karimi, K., Jun 2022, In: Biomass and Bioenergy. 161, 1, p. 1-16 16 p., 106446.

**Efficient ethanol production from rice straw through cellulose restructuring and high solids loading fermentation by *Mucor indicus***

Molaverdi, M., Mirmohamadsadeghi, S., Karimi, K., Aghbashlo, M. & Tabatabaei, M., 10 Mar 2022, In: Journal of Cleaner Production. 339, 10 p., 130702.

**Efficient coproduction of butanol, ethanol, and biohydrogen from municipal solid waste through a cocultivated biorefinery**  
Ebrahimian, F., Denayer, J. F. M. & Karimi, K., 1 Mar 2022, In: Energy Conversion and Management. 255, 115303.

**Biorefinery for efficient xanthan gum, ethanol, and biogas production from potato crop residues**  
Soltaninejad, A., Jazini, M. & Karimi, K., Mar 2022, In: Biomass and Bioenergy. 158, 1, p. 1-8 8 p., 106354.

**Impacts of Glycoalkaloid Content of Potato Stem and Leaf on their Utilization for Production of Biobutanol as an Advanced Biofuel**  
Abedini, A., Amiri, H. & Karimi, K., Mar 2022, In: Journal of Health System Research. 18, 1, p. 46-53 8 p.

**Sustainable bioconversion of potato peel wastes into ethanol and biogas using organosolv pretreatment**  
Soltaninejad, A., Jazini, M. & Karimi, K., Mar 2022, In: Chemosphere. 291, 1, 133003.

**Apple pomace biorefinery for ethanol, mycoprotein, and value-added biochemicals production by *Mucor indicus***  
Borujeni, N. E., Karimi, K., Denayer, J. F. M. & Kumar, R., 1 Feb 2022, In: Energy. 240, 122469.

**Valorization of vinasse and whey to protein and biogas through an environmental fungi-based biorefinery**  
Hashemi, S. S., Karimi, K. & Taherzadeh, M. J., Feb 2022, In: Journal of Environmental Management. 303, 1, p. 1-9 9 p., 114138.

**Energy saving alternatives for renewable ethanol production with the focus on separation/purification units: A techno-economic analysis**  
Botshekan, M., Moheb, A., Vatankhah, F., Karimi, K. & Shafiei, M., 15 Jan 2022, In: Energy. 239, p. 1-12 12 p., 122363.

**Mesophilic aerobic digestion: An efficient and inexpensive biological pretreatment to improve biogas production from highly-recalcitrant pinewood**  
Karami, K., Karimi, K., Mirmohamadsadeghi, S. & Kumar, R., 15 Jan 2022, In: Energy. 239, 10 p., 122361.

**Safflower-based biorefinery producing a broad spectrum of biofuels and biochemicals: A life cycle assessment perspective**  
Hosseinzadeh-Bandbafha, H., Nazemi, F., Khounani, Z., Ghanavati, H., Shafiei, M., Karimi, K., Lam, S. S., Aghbashlo, M. & Tabatabaei, M., 1 Jan 2022, In: Science of the Total Environment. 802, 11 p., 149842.

**Hydrothermal pretreatment: An efficient process for improvement of biobutanol, biohydrogen, and biogas production from orange waste via a biorefinery approach**  
Saadatinavaz, F., Karimi, K. & Denayer, J. F. M., Dec 2021, In: Bioresource technology. 341, 10 p., 125834.

**Improved environmental and socio-economic impacts of ethanol production from rice straw**  
Bay, M. S., Karimi, K. & Mirmohamadsadeghi, S., Oct 2021, In: Biomass Conversion and Biorefinery. 11, 5, p. 1909-1920 12 p.

**Integrated process for protein, pigments, and biogas production from baker's yeast wastewater using filamentous fungi**  
Sajad Hashemi, S., Karimi, K. & Taherzadeh, M. J., Oct 2021, In: Bioresource technology. 337, 10 p., 125356.

**Techno-economic aspects of different process approaches based on brown macroalgae feedstock: A step toward commercialization of seaweed-based biorefineries**  
Nazemi, F., Karimi, K., Denayer, J. F. M. & Shafiei, M., Oct 2021, In: Algal Research. 58, 14 p., 102366.

**Biorefining for olive wastes management and efficient bioenergy production**  
Najafi, E., Castro, E. & Karimi, K., 15 Sept 2021, In: Energy Conversion and Management. 244, 12 p., 114467.

**An optimal biorefinery development for pectin and biofuels production from orange wastes without enzyme consumption**  
Vaez, S., Karimi, K., Mirmohamadsadeghi, S. & Jeyhanipour, A., Aug 2021, In: Process Safety and Environmental Protection. 152, p. 513-526 14 p.

**High efficient ethanol production from corn stover by modified mild alkaline pretreatment**  
Molaverdi, M., Karimi, K., Mirmohamadsadeghi, S. & Galbe, M., Jun 2021, In: Renewable Energy. 170, p. 714-723 10 p.

**Editorial: New Insights Into the Valorization of Agricultural and Agroindustrial Byproducts Through Biorefinery Cascade Processing**  
Contreras, M. D. M., Karimi, K., Taamalli, A. & Castro, E., 30 Mar 2021, In: Frontiers in Energy Research. 9, 675042.

**Current challenges and innovative developments in pretreatment of lignocellulosic residues for biofuel production: A review**  
Beig, B., Riaz, M., Raza Naqvi, S., Hassan, M., Zheng, Z., Karimi, K., Pugazhendhi, A., Atabani, A. E. & Thuy Lan Chi, N., 1 Mar 2021, In: Fuel. 287, 18 p., 119670.

**Exergy analysis of a whole-crop safflower biorefinery: A step towards reducing agricultural wastes in a sustainable manner**  
Khounani, Z., Hosseinzadeh-Bandbafha, H., Nazemi, F., Shaeifi, M., Karimi, K., Tabatabaei, M., Aghbashlo, M. & Lam, S. S., 1 Feb 2021, In: Journal of Environmental Management. 279, 15 p., 111822.

**Effects of pinewood extractives on bioconversion of pinewood**  
Tajmirriahi, M., Karimi, K. & Kumar, R., 1 Jan 2021, In: Fuel. 283, 9 p., 119302.

**Exergetic, exergoeconomic, and exergoenvironmental aspects of an industrial-scale molasses-based ethanol production plant**  
Amid, S., Aghbashlo, M., Tabatabaei, M., Karimi, K., Nizami, A.-S., Rehan, M., Hosseinzadeh-Bandbafha, H., Soufiyan, M. M., Peng, W. & Lam, S. S., 1 Jan 2021, In: Energy Conversion and Management. 227, 1, p. 1-14 14 p., 113637.

**Pretreatment of lignocelluloses for enhanced biogas production: A review on influencing mechanisms and the importance of microbial diversity**  
Mirmohamadsadeghi, S., Karimi, K., Azarbaijani, R., Parsa Yeganeh, L., Angelidaki, I., Nizami, A. S., Bhat, R., Dashora, K., Vijay, V. K., Aghbashlo, M., Gupta, V. K. & Tabatabaei, M., Jan 2021, In: Renewable and Sustainable Energy Reviews. 135, 110173.

**The critical impact of rice straw extractives on biogas and bioethanol production**  
Tajmirriahi, M., Momayez, F. & Karimi, K., Jan 2021, In: Bioresource technology. 319, 124167.

**Integrated biorefinery of aquatic fern *Azolla filiculoides* for enhanced extraction of phenolics, protein, and lipid and methane production from the residues**  
Dohaei, M., Karimi, K., Rahimmalek, M. & Satari, B., 10 Dec 2020, In: Journal of Cleaner Production. 276, 123175.

**Synergy of municipal solid waste co-processing with lignocellulosic waste for improved biobutanol production**  
Farmanbordar, S., Amiri, H. & Karimi, K., Dec 2020, In: Waste Management. 118, p. 45-54 10 p.

**Efficient biobutanol production from potato peel wastes by separate and simultaneous inhibitors removal and pretreatment**  
Abedini, A., Amiri, H. & Karimi, K., Nov 2020, In: Renewable Energy. 160, p. 269-277 9 p.

**Recent advances on pretreatment of lignocellulosic and algal biomass**  
Taherzadeh, M., Parameswaran, B., Karimi, K., de Souza Vandenberghe, L. P. & Kumar Patel, A., Nov 2020, In: Bioresource technology. 316, 2 p., 123957.

**Techno-economic study of castor oil crop biorefinery: Production of biodiesel without fossil-based methanol and lignoethanol improved by alkali pretreatment**

Rahimi, V., Shafiei, M. & Karimi, K., 10 Oct 2020, In: *Agronomy*. 10, 10, 1538.

**Sustainable biofuels and bioplastic production from the organic fraction of municipal solid waste**

Ebrahimian, F., Karimi, K. & Kumar, R., Oct 2020, In: *Waste Management*. 116, p. 40-48 9 p.

**Whole sweet sorghum plant as a promising feedstock for biobutanol production via biorefinery approaches: Techno-economic analysis**

Dehghanzad, M., Shafiei, M. & Karimi, K., Oct 2020, In: *Renewable Energy*. 158, p. 332-342 11 p.

**Structural modification of pine and poplar wood by alkali pretreatment to improve ethanol production**

Bay, M. S., Karimi, K., Nasr Esfahany, M. & Kumar, R., 15 Sept 2020, In: *Industrial Crops and Products*. 152, 112506.

**Co-fermentation of hemicellulosic hydrolysates and starch from sweet sorghum by *Clostridium acetobutylicum*: A synergistic effect for butanol production**

Mirfakhar, M., Asadollahi, M. A., Amiri, H. & Karimi, K., 1 Sept 2020, In: *Industrial Crops and Products*. 151, 112459.

**Combined bead milling and enzymatic hydrolysis for efficient fractionation of lipids, proteins, and carbohydrates of *Chlorella vulgaris* microalgae**

Alavijeh, R. S., Karimi, K., Wijffels, R. H., van den Berg, C. & Eppink, M., Aug 2020, In: *Bioresource technology*. 309, 123321.

**Biobutanol production from municipal solid waste: Technical and economic analysis**

Ashani, P. N., Shafiei, M. & Karimi, K., Jul 2020, In: *Bioresource technology*. 308, 123267.

**Sustainable and Effective Chitosan Production by Dimorphic Fungus *Mucor rouxii* via Replacing Yeast Extract with Fungal Extract**

Abasian, L., Shafiei Alavijeh, R., Satari, B. & Karimi, K., 1 Jun 2020, In: *Applied Biochemistry and Biotechnology*. 191, 2, p. 666-678 13 p.

**Biorefinery development based on whole safflower plant**

Hashemi, S. S., Mirmohamadsadeghi, S. & Karimi, K., Jun 2020, In: *Renewable Energy*. 152, p. 399-408 10 p.

**Efficient superantioxidant and biofuel production from microalga *Haematococcus pluvialis* via a biorefinery approach**

Hosseini, A., Jazini, M., Mahdieh, M. & Karimi, K., Jun 2020, In: *Bioresource technology*. 306, 8 p., 123100.

**An integrated and optimized process for cleaner production of ethanol and biodiesel from corn stover by *Mucor indicus***

Shafiei Alavijeh, R., Karimi, K. & van den Berg, C., 10 Mar 2020, In: *Journal of Cleaner Production*. 249, 11 p., 119321.

**Efficient biohydrogen and advanced biofuel coproduction from municipal solid waste through a clean process**

Ebrahimian, F. & Karimi, K., Mar 2020, In: *Bioresource technology*. 300, 122656.

**A comprehensive review on recent biological innovations to improve biogas production, Part 1: Upstream strategies**

Tabatabaei, M., Aghbashlo, M., Valijanian, E., Kazemi Shariat Panahi, H., Nizami, A. S., Ghanavati, H., Sulaiman, A., Mirmohamadsadeghi, S. & Karimi, K., Feb 2020, In: *Renewable Energy*. 146, p. 1204-1220 17 p.

**A comprehensive review on recent biological innovations to improve biogas production, Part 2: Mainstream and downstream strategies**

Tabatabaei, M., Aghbashlo, M., Valijanian, E., Kazemi Shariat Panahi, H., Nizami, A. S., Ghanavati, H., Sulaiman, A., Mirmohamadsadeghi, S. & Karimi, K., Feb 2020, In: *Renewable Energy*. 146, p. 1392-1407 16 p.

**Dry/Solid-State Fermentative Ethanol Production**

Molaverdi, M., Mirmohamadsadeghi, S. & Karimi, K., 1 Jan 2020, *Encyclopedia of Renewable and Sustainable Materials: Volume 1-5*. Elsevier, Vol. 1-5. p. 60-67 8 p.

### **Recovery of silica from rice straw and husk**

Mirmohamadsadeghi, S. & Karimi, K., 1 Jan 2020, *Current Developments in Biotechnology and Bioengineering: Resource Recovery from Wastes*. Elsevier, p. 411-433 23 p.

### **Conversion of residues from agro-food industry into bioethanol in Iran: An under-valued biofuel additive to phase out MTBE in gasoline**

Kazemi Shariat Panahi, H., Dehhaghi, M., Aghbashlo, M., Karimi, K. & Tabatabaei, M., Jan 2020, In: *Renewable Energy*. 145, p. 699-710 12 p.

### **A morpholinium ionic liquid for rice straw pretreatment to enhance ethanol production**

Mohammadi, M., Shafiei, M., Abdolmaleki, A., Karimi, K., Mikkola, J. P. & Larsson, C., 1 Nov 2019, In: *Industrial Crops and Products*. 139, 9 p., 111494.

### **Progress toward improving ethanol production through decreased glycerol generation in *Saccharomyces cerevisiae* by metabolic and genetic engineering approaches**

Naghshbandi, M. P., Tabatabaei, M., Aghbashlo, M., Gupta, V. K., Sulaiman, A., Karimi, K., Moghimi, H. & Maleki, M., Nov 2019, In: *Renewable and Sustainable Energy Reviews*. 115, 21 p., 109353.

### **Biogas production from food wastes: A review on recent developments and future perspectives**

Mirmohamadsadeghi, S., Karimi, K., Tabatabaei, M. & Aghbashlo, M., Sept 2019, In: *Bioresource Technology Reports*. 7, 10 p., 100202.

### **Improvement of ethanol production from birch and spruce pretreated with 1-H-3-methylmorpholinium chloride**

Mohammadi, M., Shafiei, M., Karimi, K., Abdolmaleki, A., Mikkola, J. P. & Larsson, C., Sept 2019, In: *Electronic Journal of Biotechnology*. 41, p. 95-99 5 p.

### **Shifting fuel feedstock from oil wells to sea: Iran outlook and potential for biofuel production from brown macroalgae (ochrophyta; phaeophyceae)**

Kazemi Shariat Panahi, H., Dehhaghi, M., Aghbashlo, M., Karimi, K. & Tabatabaei, M., Sept 2019, In: *Renewable and Sustainable Energy Reviews*. 112, p. 626-642 17 p.

### **Ethanol ammonia pretreatment for efficient biogas production from sugarcane bagasse**

Sajad Hashemi, S., Karimi, K. & Majid Karimi, A., 15 Jul 2019, In: *Fuel*. 248, p. 196-204 9 p.

### **Hydrothermal pretreatment of safflower straw to enhance biogas production**

Hashemi, S. S., Karimi, K. & Mirmohamadsadeghi, S., 1 Apr 2019, In: *Energy*. 172, p. 545-554 10 p.

### **A review of biogas production from sugarcane vinasse**

Parsaee, M., Kiani Deh Kiani, M. & Karimi, K., Mar 2019, In: *Biomass and Bioenergy*. 122, p. 117-125 9 p.

### **Biobutanol production from corn stover in the US**

Karimi Alavijeh, M. & Karimi, K., Mar 2019, In: *Industrial Crops and Products*. 129, p. 641-653 13 p.

### **Energy recovery from industrial crop wastes by dry anaerobic digestion: A review**

Momayez, F., Karimi, K. & Taherzadeh, M. J., Mar 2019, In: *Industrial Crops and Products*. 129, p. 673-687 15 p.

### **High titer ethanol production from rice straw via solid-state simultaneous saccharification and fermentation by *Mucor indicus* at low enzyme loading**

Molaverdi, M., Karimi, K., Mirmohamadsadeghi, S. & Galbe, M., 15 Feb 2019, In: *Energy Conversion and Management*. 182, p. 520-529 10 p.

### **Improvement of dry simultaneous saccharification and fermentation of rice straw to high concentration ethanol by sodium carbonate pretreatment**

Molaverdi, M., Karimi, K. & Mirmohamadsadeghi, S., 15 Jan 2019, In: *Energy*. 167, p. 654-660 7 p.

#### Biobutanol production

Amiri, H. & Karimi, K., 1 Jan 2019, *Advanced Bioprocessing for Alternative Fuels, Biobased Chemicals, and Bioproducts: Technologies and Approaches for Scale-Up and Commercialization*. Elsevier, p. 109-133 25 p.

#### Fermentation inhibitors in ethanol and biogas processes and strategies to counteract their effects

Wikandari, R., Sanjaya, A. P., Millati, R., Karimi, K. & Taherzadeh, M. J., 1 Jan 2019, *Biomass, Biofuels, Biochemicals: Biofuels: Alternative Feedstocks and Conversion Processes for the Production of Liquid and Gaseous Biofuels*. Elsevier, p. 461-499 39 p.

#### Cellulose solvent-based pretreatment for enhanced second-generation biofuel production: A review

Satari, B., Karimi, K. & Kumar, R., 2019, In: *Sustainable Energy and Fuels*. 3, 1, p. 11-62 52 p.

#### Sustainable and efficient sugar production from wheat straw by pretreatment with biogas digestate

Momayez, F., Karimi, K. & Sárvári Horváth, I., 2019, In: *RSC Advances*. 9, 47, p. 27692-27701 10 p.

#### Enhancing ethanol and methane production from rice straw by pretreatment with liquid waste from biogas plant

Momayez, F., Karimi, K. & Horváth, I. S., 15 Dec 2018, In: *Energy Conversion and Management*. 178, p. 290-298 9 p.

#### Using sweet sorghum bagasse for production of amylases required for its grain hydrolysis via a biorefinery platform

Lolasi, F., Amiri, H., Asadollahi, M. A. & Karimi, K., 1 Dec 2018, In: *Industrial Crops and Products*. 125, p. 473-481 9 p.

#### Optimization of fermentation conditions for efficient ethanol production by *Mucor hiemalis*

Keikhosro, K. & Esmaeili, H., Dec 2018, In: *Turkish Journal of Biochemistry*. 43, 6, p. 587-594 8 p.

#### Pretreatment and hydrolysis of lignocellulosic wastes for butanol production: Challenges and perspectives

Amiri, H. & Karimi, K., Dec 2018, In: *Bioresource technology*. 270, p. 702-721 20 p.

#### *Sargassum angustifolium* brown macroalga as a high potential substrate for alginate and ethanol production with minimal nutrient requirement

Ardalan, Y., Jazini, M. & Karimi, K., Dec 2018, In: *Algal Research*. 36, p. 29-36 8 p.

#### Simultaneous organosolv pretreatment and detoxification of municipal solid waste for efficient biobutanol production

Farmanbordar, S., Amiri, H. & Karimi, K., Dec 2018, In: *Bioresource technology*. 270, p. 236-244 9 p.

#### Improvement of ethanol and biogas production from sugarcane bagasse using sodium alkaline pretreatments

Nosratpour, M. J., Karimi, K. & Sadeghi, M., 15 Nov 2018, In: *Journal of Environmental Management*. 226, p. 329-339 11 p.

#### Properties investigation of recycled polylactic acid reinforced by cellulose nanofibrils isolated from bagasse

Heidarian, P., Behzad, T., Karimi, K. & Sain, M., Oct 2018, In: *Polymer Composites*. 39, 10, p. 3740-3749 10 p.

#### Life cycle assessment of castor-based biorefinery: a well to wheel LCA

Khoshnevisan, B., Rafiee, S., Tabatabaei, M., Ghanavati, H., Mohtasebi, S. S., Rahimi, V., Shafiei, M., Angelidaki, I. & Karimi, K., 1 Sept 2018, In: *International Journal of Life Cycle Assessment*. 23, 9, p. 1788-1805 18 p.

#### Hydrothermal processing as pretreatment for efficient production of ethanol and biogas from municipal solid waste

Mahmoodi, P., Karimi, K. & Taherzadeh, M. J., Aug 2018, In: *Bioresource technology*. 261, p. 166-175 10 p.

#### Efficient ethanol production from kitchen and garden wastes and biogas from the residues

Karimi, S. & Karimi, K., 20 Jun 2018, In: *Journal of Cleaner Production*. 187, p. 37-45 9 p.

Efficient conversion of municipal solid waste to biofuel by simultaneous dilute-acid hydrolysis of starch and pretreatment of lignocelluloses

Mahmoodi, P., Karimi, K. & Taherzadeh, M. J., 15 Jun 2018, In: *Energy Conversion and Management*. 166, p. 569-578 10 p.

Enhancing energy production from waste textile by hydrolysis of synthetic parts

Hasanzadeh, E., Mirmohamadsadeghi, S. & Karimi, K., 15 Apr 2018, In: *Fuel*. 218, p. 41-48 8 p.

Bioenergy production from sweet sorghum stalks via a biorefinery perspective

Nozari, B., Mirmohamadsadeghi, S. & Karimi, K., 1 Apr 2018, In: *Applied Microbiology and Biotechnology*. 102, 7, p. 3425-3438 14 p.

Well-to-wheel life cycle assessment of *Eruca Sativa*-based biorefinery

Rahimi, V., Karimi, K., Shafiei, M., Naghavi, R., Khoshnevisan, B., Ghanavati, H., Mohtasebi, S. S., Rafiee, S. & Tabatabaei, M., Mar 2018, In: *Renewable Energy*. 117, p. 135-149 15 p.

Energy recovery together with amorphous nanosilica production from rice straw via dry anaerobic digestion

Mirmohamadsadeghi, S. & Karimi, K., 1 Feb 2018, In: *Bioresources*. 13, 1, p. 1872-1884 13 p.

Mucoralean fungi for sustainable production of bioethanol and biologically active molecules

Satari, B. & Karimi, K., 1 Feb 2018, In: *Applied Microbiology and Biotechnology*. 102, 3, p. 1097-1117 21 p.

Municipal solid waste as a suitable substrate for butanol production as an advanced biofuel

Farmanbordar, S., Karimi, K. & Amiri, H., 1 Feb 2018, In: *Energy Conversion and Management*. 157, p. 396-408 13 p.

Structural features influential to enzymatic hydrolysis of cellulose-solvent-based pretreated pinewood and elmwood for ethanol production

Satari, B., Karimi, K. & Molaverdi, M., 1 Feb 2018, In: *Bioprocess and Biosystems Engineering*. 41, 2, p. 249-264 16 p.

Citrus processing wastes: Environmental impacts, recent advances, and future perspectives in total valorization

Satari, B. & Karimi, K., Feb 2018, In: *Resources, Conservation and Recycling*. 129, p. 153-167 15 p.

Copper removal by filamentous and yeast-like morphologies of *Mucor indicus*: Surface characterization and biosorption mechanism

Behnam, S., Karimi, K., Zamani, A. & Mehrabani-Zeinabad, A., 2018, In: *Desalination and Water Treatment*. 114, p. 221-231 11 p.

Enhancement of ethanol production by novel morpholinium ionic liquids

Kahani, S., Shafiei, M., Abdolmaleki, A. & Karimi, K., 1 Dec 2017, In: *Journal of Cleaner Production*. 168, p. 952-962 11 p.

Phenolic compounds removal from sweet sorghum grain for efficient biobutanol production without nutrient supplementation

Mirfakhar, M., Asadollahi, M. A., Amiri, H. & Karimi, K., 1 Dec 2017, In: *Industrial Crops and Products*. 108, p. 225-231 7 p.

Efficient bioconversion of whole sweet sorghum plant to acetone, butanol, and ethanol improved by acetone delignification

Jafari, Y., Karimi, K. & Amiri, H., 10 Nov 2017, In: *Journal of Cleaner Production*. 166, p. 1428-1437 10 p.

Effects of fermentation conditions on valuable products of ethanolic fungus *Mucor indicus*

Sharifyazd, S. & Karimi, K., Nov 2017, In: *Electronic Journal of Biotechnology*. 30, p. 77-82 6 p.

Silica Removal from Rice Straw to Improve its Hydrolysis and Ethanol Production

Khaleghian, H., Molaverdi, M. & Karimi, K., 6 Sept 2017, In: *Industrial and Engineering Chemistry Research*. 56, 35, p. 9793-9798 6 p.

Effects of Oil Extraction on Ethanol and Biogas Production from *Eruca sativa* Seed Cake  
Bateni, H., Bateni, F. & Karimi, K., Sept 2017, In: Waste and Biomass Valorization. 8, 6, p. 1897-1905 9 p.

Bioethanol Production and Technologies

Karimi, K. & Chisti, Y., 4 Jul 2017, *Encyclopedia of Sustainable Technologies*. Elsevier, p. 273-284 12 p.

Effect of phosphate concentration on exergetic-based sustainability parameters of glucose fermentation by *Ethanolica mucor indicus*

Aghbashlo, M., Tabatabaei, M., Karimi, K. & Mohammadi, M., 1 Jan 2017, In: Sustainable Production and Consumption. 9, p. 28-36 9 p.

Dilute alkali pretreatment of softwood pine: A biorefinery approach

Safari, A., Karimi, K. & Shafiei, M., 2017, In: Bioresource technology. 234, p. 67-76 10 p.

Efficient hydrolysis and ethanol production from rice straw by pretreatment with organic acids and effluent of biogas plant  
Momayez, F., Karimi, K., Karimi, S. & Horváth, I. S., 2017, In: RSC Advances. 7, 80, p. 50537-50545 9 p.

Microbial xanthan gum production from alkali-pretreated rice straw

Jazini, M. H., Fereydouni, E. & Karimi, K., 2017, In: RSC Advances. 7, 6, p. 3507-3514 8 p.

Process optimization for citrus waste biorefinery via simultaneous pectin extraction and pretreatment

Satari, B., Palhed, J., Karimi, K., Lundin, M., Taherzadeh, M. J. & Zamani, A., 2017, In: Bioresources. 12, 1, p. 1706-1722 17 p.

Simultaneous biosorption and bioethanol production from lead-contaminated media by *Mucor indicus*

Samadi, S., Karimi, K. & Behnam, S., 2017, In: Biofuel Research Journal. 4, 1, p. 545-550 6 p.

Efficient Biogas and Ethanol Production from Safflower Straw Using Sodium Carbonate Pretreatment

Hashemi, S. S., Karimi, K., Nosratpour, M. J. & Sárvári Horváth, I., 15 Dec 2016, In: Energy and Fuels. 30, 12, p. 10592-10601 10 p.

Ethanol and value-added byproducts from rice straw by dimorphic fungus *Mucor hiemalis*

Beheshti, H. & Karimi, K., 1 Nov 2016, In: Engineering in Life Sciences. 16, 8, p. 750-761 12 p.

Anaerobic digestion as a pretreatment to enhance ethanol yield from lignocelluloses

Bahmani, M. A., Shafiei, M. & Karimi, K., 1 Sept 2016, In: Process Biochemistry. 51, 9, p. 1256-1263 8 p.

Isolation and characterization of bagasse cellulose nanofibrils by optimized sulfur-free chemical delignification

Heidarian, P., Behzad, T. & Karimi, K., 1 Sept 2016, In: Wood Science and Technology. 50, 5, p. 1071-1088 18 p.

The influence of dilute sulfuric acid pretreatment on biogas production from wheat plant

Taherdanak, M., Zilouei, H. & Karimi, K., 1 Sept 2016, In: International Journal of Green Energy. 13, 11, p. 1129-1134 6 p.

Impact of phosphate, potassium, yeast extract, and trace metals on chitosan and metabolite production by *Mucor indicus*

Safaei, Z., Karimi, K. & Zamani, A., Sept 2016, In: International Journal of Molecular Sciences. 17, 9, 10 p., 1429.

*Mucor indicus*, *Mucor hiemalis*, ve *Rhizopus oryzae* tarafından üretilen glukoamilazın katı hal fermantasyonu ile optimizasyonu

Behnam, S., Karimi, K., Khanahmadi, M. & Salimian, Z., Aug 2016, In: Turkish Journal of Biochemistry. 41, 4, p. 250-256 7 p.

- Oil, chitosan, and ethanol production by dimorphic fungus *Mucor indicus* from different lignocelluloses  
Satari, B., Karimi, K. & Zamani, A., 1 Jun 2016, In: *Journal of Chemical Technology and Biotechnology*. 91, 6, p. 1835-1843 9 p.
- Non-cross-linked membrane and beads of chitosan for efficient heavy metal removal  
Karimi Alavijeh, M., Moumivand, F., Zamani, A. & Karimi, K., Jun 2016, In: *Minerva Biotechnologica*. 28, 2, p. 75-80 6 p.
- Integration of autohydrolysis and organosolv delignification for efficient acetone, butanol, and ethanol production and lignin recovery  
Amiri, H. & Karimi, K., 4 May 2016, In: *Industrial and Engineering Chemistry Research*. 55, 17, p. 4836-4845 10 p.
- Ethanol production from alkali-pretreated oil palm empty fruit bunch by simultaneous saccharification and fermentation with *Mucor indicus*  
Christia, A., Setiowati, A. D., Millati, R., Karimi, K., Cahyanto, M. N., Niklasson, C. & Taherzadeh, M. J., 2 May 2016, In: *International Journal of Green Energy*. 13, 6, p. 566-572 7 p.
- Improvement of Solid-State biogas production from wood by concentrated phosphoric acid pretreatment  
Mirmohamadsadeghi, S., Karimi, K. & Horváth, I. S., 1 May 2016, In: *Bioresources*. 11, 2, p. 3230-3243 14 p.
- Acetone pretreatment for improvement of acetone, butanol, and ethanol production from sweet sorghum bagasse  
Jafari, Y., Amiri, H. & Karimi, K., 15 Apr 2016, In: *Applied Energy*. 168, p. 216-225 10 p.
- The influence of dilute sulfuric acid pretreatment on biogas production from wheat plant  
Taherdanak, M., Zilouei, H. & Karimi, K., Apr 2016, In: *International Journal of Green Energy*. p. 1129-1134 5 p.
- A critical review on analysis in pretreatment of lignocelluloses: Degree of polymerization, adsorption/desorption, and accessibility  
Karimi, K. & Taherzadeh, M. J., 1 Mar 2016, In: *Bioresource technology*. 203, p. 348-356 9 p.
- Biodiesel production from castor plant integrating ethanol production via a biorefinery approach  
Bateni, H. & Karimi, K., 1 Mar 2016, In: *Chemical Engineering Research and Design*. 107, p. 4-12 9 p.
- Exergy-based sustainability assessment of ethanol production via *Mucor indicus* from fructose, glucose, sucrose, and molasses  
Aghbashlo, M., Tabatabaei, M. & Karimi, K., 1 Mar 2016, In: *Energy*. 98, p. 240-252 13 p.
- Co-production of fungal biomass derived constituents and ethanol from citruswastes free sugars without auxiliary nutrients in airlift bioreactor  
Satari, B., Karimi, K., Taherzadeh, M. J. & Zamani, A., 26 Feb 2016, In: *International Journal of Molecular Sciences*. 17, 3, p. 302.
- Detailed study of efficient ethanol production from elmwood by alkali pretreatment  
Noori, M. S. & Karimi, K., 15 Jan 2016, In: *Biochemical Engineering Journal*. 105, p. 197-204 8 p.
- The effects of  $\text{Fe}^0$  and  $\text{Ni}^0$  nanoparticles versus  $\text{Fe}^{2+}$  and  $\text{Ni}^{2+}$  ions on dark hydrogen fermentation  
Taherdanak, M., Zilouei, H. & Karimi, K., 5 Jan 2016, In: *International Journal of Hydrogen Energy*. 41, 1, p. 167-173 7 p.
- Nesterenkonia* sp. strain F, a halophilic bacterium producing acetone, butanol, and ethanol under aerobic conditions  
Amiri, H., Azarbaijani, R., Parsa Yeganeh, L., Shahzadeh Fazeli, A., Tabatabaei, M., Hosseini Salekdeh, G. & Karimi, K., 4 Jan 2016, In: *Scientific reports*. 6, 10 p., 18408.
- A critical review of analytical methods in pretreatment of lignocelluloses: Composition, imaging, and crystallinity  
Karimi, K. & Taherzadeh, M. J., 1 Jan 2016, In: *Bioresource technology*. 200, p. 1008-1018 11 p.

Biobutanol production using unhydrolyzed waste acorn as a novel substrate  
Heidari, F., Asadollahi, M. A., Jeyhanipour, A., Kheyrandish, M., Rismani-Yazdi, H. & Karimi, K., 2016, In: RSC Advances. 6, 11, p. 9254-9260 7 p.

Biorefining of *Eruca sativa* plant for efficient biofuel production  
Bateni, H. & Karimi, K., 2016, In: RSC Advances. 6, 41, p. 34492-34500 9 p.

Chemical and structural analysis of alkali pretreated pinewood for efficient ethanol production  
Noori, M. S. & Karimi, K., 2016, In: RSC Advances. 6, 70, p. 65683-65690 8 p.

Enhanced ethanol and glucosamine production from rice husk by NaOH pretreatment and fermentation by fungus *Mucor hiemalis*  
Omidvar, M., Karimi, K. & Mohammadi, M., 2016, In: Biofuel Research Journal. 3, 3, p. 475-481 7 p.

Erratum: Biorefining of *Eruca sativa* plant for efficient biofuel production (RSC Advances (2016) 6 (34492-34500))  
Bateni, H. & Karimi, K., 2016, In: RSC Advances. 6, 57, p. 51598 1 p.

Integrated ethanol and biogas production from pinewood  
Safari, A., Karimi, K. & Shafiei, M., 2016, In: RSC Advances. 6, 43, p. 36441-36449 9 p.

Recent updates on biogas production - A review  
Horváth, I. S., Tabatabaei, M., Karimi, K. & Kumar, R., 2016, In: Biofuel Research Journal. 3, 2, p. 394-402 9 p.

Recent updates on lignocellulosic biomass derived ethanol - A review  
Kumar, R., Tabatabaei, M., Karimi, K. & Horváth, I. S., 2016, In: Biofuel Research Journal. 3, 1, p. 347-356 10 p.

Ethanol production from rice straw by sodium carbonate pretreatment and *Mucor hiemalis* fermentation  
Khaleghian, H., Karimi, K. & Behzad, T., 15 Dec 2015, In: Industrial Crops and Products. 76, p. 1079-1085 7 p.

Enhanced biogas production from sunflower stalks using hydrothermal and organosolv pretreatment  
Hesami, S. M., Zilouei, H., Karimi, K. & Asadinezhad, A., 5 Dec 2015, In: Industrial Crops and Products. 76, p. 449-455 7 p.

Investigating the effects of iron and nickel nanoparticles on dark hydrogen fermentation from starch using central composite design  
Taherdanak, M., Zilouei, H. & Karimi, K., 15 Oct 2015, In: International Journal of Hydrogen Energy. 40, 38, p. 12956-12963 8 p., 16411.

Chemical and physical characterization and acid hydrolysis of a mixture of *Jatropha Curcas* shells and husks  
García, A., López, Y., Karimi, K., Benítez, A., Lundin, M., Taherzadeh, M. & Martín, C., 1 Oct 2015, In: Cellulose Chemistry and Technology. 49, 9-10, p. 737-744 8 p.

Modeling of High-Concentration Ethanol Production by *Mucor hiemalis*  
Radmanesh, F., Mirmohamadsadeghi, S., Karimi, K. & Zamani, A., 1 Oct 2015, In: Chemical Engineering and Technology. 38, 10, p. 1802-1808 7 p.

Efficient treatment of baker's yeast wastewater using aerobic membrane bioreactor  
Nosratpour, M. J., Sadeghi, M., Karimi, K. & Ghesmati, S., Oct 2015, In: Advances in Environmental Technology. 1, 3, p. 105-111 7 p.

Improvement of acetone, butanol, and ethanol production from woody biomass using organosolv pretreatment  
Amiri, H. & Karimi, K., Oct 2015, In: Bioprocess and Biosystems Engineering. 38, 10, p. 1959-1972 14 p., 1437.

Recent trends in biodiesel production

Tabatabaei, M., Karimi, K., Horváth, I. S. & Kumar, R., 1 Sept 2015, In: *Biofuel Research Journal*. 2, 3, p. 258-267 10 p.

Effects of plant growth hormones on *mucor indicus* growth and chitosan and ethanol production

Safaei, Z., Karimi, K., Golkar, P. & Zamani, A., 22 Jul 2015, In: *International Journal of Molecular Sciences*. 16, 7, p. 16683-16694 12 p.

Effects of over-liming on wastewater detoxification for enhancement of biogas production

Seyedy Niasar, H., Zilouei, H., Rahmani, V. & Karimi, K., 18 Jul 2015, In: *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*. 37, 14, p. 1560-1567 8 p.

Pretreatment of rice straw for the improvement of biogas production

Dehghani, M., Karimi, K. & Sadeghi, M., 18 Jun 2015, In: *Energy and Fuels*. 29, 6, p. 3770-3775 6 p.

Copper Removal Using Different Fungal-Based Adsorbents: A Comparative and Detailed Study

Behnam, S., Zamani, A., Karimi, K. & Mehrabani-Zeinabad, A., 3 Jun 2015, In: *Journal of Dispersion Science and Technology*. 36, 6, p. 866-876 11 p.

Future of bioethanol...

Karimi, K. & Chisti, Y., 1 Mar 2015, In: *Biofuel Research Journal*.

Direct production of acetone-butanol-ethanol from waste starch by free and immobilized *Clostridium acetobutylicum*

Kheyrandish, M., Asadollahi, M. A., Jeyhanipour, A., Doostmohammadi, M., Rismani-Yazdi, H. & Karimi, K., 15 Feb 2015, In: *Fuel*. 142, p. 129-133 5 p.

Characterization of *Nizimuddinina zanardini* macroalgae biomass composition and its potential for biofuel production

Yazdani, P., Zamani, A., Karimi, K. & Taherzadeh, M. J., 1 Jan 2015, In: *Bioresource technology*. 176, p. 196-202 7 p.

Pretreatment of Lignocellulosic Biomass

Shafiei, M., Kumar, R. & Karimi, K., Jan 2015, *Lignocellulose-Based Bioproducts. Biofuel and Biorefinery Technologies*. Switzerland: Springer International Publishing AG, Vol. 1. p. 85–154 69 p. (Lignocellulose-Based Bioproducts. Biofuel and Biorefinery Technologies; vol. 1).

Autohydrolysis: A promising pretreatment for the improvement of acetone, butanol, and ethanol production from woody materials

Amiri, H. & Karimi, K., 2015, In: *Chemical Engineering Science*. 137, p. 722-729 8 p.

Biobutanol from Lignocellulosic Wastes

Amiri, H., Karimi, K., Bankar, S. & Granström, T., 2015, 35 p. Switzerland : Springer.

Efficient conversion of sweet sorghum stalks to biogas and ethanol using organosolv pretreatment

Ostovareh, S., Karimi, K. & Zamani, A., 2015, In: *Industrial Crops and Products*. 66, 1, p. 170-177 8 p.

Lignocellulose-Based Bioproducts

Karimi, K. (Editor), 2015, 1 ed. Switzerland: Springer Nature Switzerland AG. 328 p. (Biofuel and Biorefinery Technologies; vol. 1)

Organic fraction of municipal solid waste as a suitable feedstock for the production of lipid by oleaginous yeast *Cryptococcus aerius*

Ghanavati, H., Nahvi, I. & Karimi, K., 2015, In: *Waste Management*. 38, 1, p. 141-148 8 p.

Recent trends in acetone, butanol, and ethanol (ABE) production

Karimi, K., Tabatabaei, M., Horváth, I. S. & Kumar, R., 2015, In: *Biofuel Research Journal*. 2, 4, p. 301-308 8 p.

Renewable energy and alternative fuel technologies

Tabatabaei, M., Karimi, K., Kumar, R. & Horváth, I. S., 2015, In: *BioMed Research International*. 2015, 1, p. 1-2 2 p., 245935.

Castor plant for biodiesel, biogas, and ethanol production with a biorefinery processing perspective

Bateni, H., Karimi, K., Zamani, A. & Benakashani, F., 1 Dec 2014, In: *Applied Energy*. 136, p. 14-22 9 p.

Biosorption of toxic acidic dye–Acid Blue 25, by aquatic plants

Kousha, M., Daneshvar, E., Esmaeili, A. R., Zilouei, H. & Karimi, K., 15 Oct 2014, In: *Desalination and Water Treatment*. 52, 34-36, p. 6756-6769 14 p.

Effective conversion of waste polyester-cotton textile to ethanol and recovery of polyester by alkaline pretreatment

Gholamzad, E., Karimi, K. & Masoomi, M., 1 Oct 2014, In: *Chemical Engineering Journal*. 253, p. 40-45 6 p.

Enhancement of nickel biosorption on fungal biomass by enzymatic and alkali pretreatments

Rouhollahi, F., Zamani, A., Karimi, K. & Etesami, N., 1 Sept 2014, In: *International Journal of Environmental Science and Technology*. 11, 7, p. 1911-1918 8 p.

A sulfuric-lactic acid process for efficient purification of fungal chitosan with intact molecular weight

Naghdi, M., Zamani, A. & Karimi, K., Feb 2014, In: *International Journal of Biological Macromolecules*. 63, p. 158-162 5 p.

Organosolv pretreatment of rice straw for efficient acetone, butanol, and ethanol production

Amiri, H., Karimi, K. & Zilouei, H., Jan 2014, In: *Bioresource technology*. 152, p. 450-456 7 p.

Adsorption of hexavalent chromium by chitosans with different molecular weights

Behnam, S., Karimi, K., Zamani, A. & Mehrabani-Zeinabad, A., 2014, In: *Minerva Biotecnologica*. 26, 3, p. 165-174 10 p.

Current and future ABE processes

Karimi, K. & Pandey, A., 2014, In: *Biofuel Research Journal*. 1, 3, p. 77 1 p.

Economic impact of NMMO pretreatment on ethanol and biogas production from pinewood

Shafiei, M., Karimi, K., Zilouei, H. & Taherzadeh, M. J., 2014, In: *BioMed Research International*. 2014, 13 p., 320254.

Enhanced ethanol and biogas production from pinewood by NMMO pretreatment and detailed biomass analysis

Shafiei, M., Karimi, K., Zilouei, H. & Taherzadeh, M. J., 2014, In: *BioMed Research International*. 2014, 10 p., 469378.

Enhanced solid-state biogas production from lignocellulosic biomass by organosolv pretreatment

Mirmohamadsadeghi, S., Karimi, K., Zamani, A., Amiri, H. & Horváth, I. S., 2014, In: *BioMed Research International*. 2014, 6 p., 350414.

Reverse micellar extraction of fungal glucoamylase produced in solid-state fermentation culture

Paraj, A., Khanahmadi, M., Karimi, K. & Taherzadeh, M. J., 2014, In: *Journal of Microbiology and Biotechnology*. 24, 12, p. 1690-1698 9 p.

Effect of phosphate on glucosamine production by ethanolic fungus *mucor indicus*

Mohammadi, M., Zamani, A. & Karimi, K., Nov 2013, In: *Applied Biochemistry and Biotechnology*. 171, 6, p. 1465-1472 8 p.

Effect of various parameters on the chemical grafting of amide monomers to poly(lactic acid)

Zare, A., Morshed, M., Bagheri, R. & Karimi, K., Nov 2013, In: *Fibers and Polymers*. 14, 11, p. 1783-1793 11 p.

Techno-economical study of biogas production improved by steam explosion pretreatment

Shafiei, M., Kabir, M. M., Zilouei, H., Sárvári Horváth, I. & Karimi, K., Nov 2013, In: *Bioresource technology*. 148, p. 53-60 8 p.

Enhanced ethanol and chitosan production from wheat straw by *Mucor indicus* with minimal nutrient consumption

Asachi, R. & Karimi, K., Oct 2013, In: *Process Biochemistry*. 48, 10, p. 1524-1531 8 p.

Efficient dilute-acid hydrolysis of cellulose using solvent pretreatment

Amiri, H. & Karimi, K., 21 Aug 2013, In: *Industrial and Engineering Chemistry Research*. 52, 33, p. 11494-11501 8 p.

Progress in physical and chemical pretreatment of lignocellulosic biomass

Karimi, K., Shafiei, M. & Kumar, R., 1 Aug 2013, *Biofuel Technologies: Recent Developments*. Springer-Verlag Berlin Heidelberg, Vol. 9783642345197. p. 53-96 44 p.

Enhanced sweet sorghum stalk to ethanol by fungus *Mucor indicus* using solid state fermentation followed by simultaneous saccharification and fermentation

Molaverdi, M., Karimi, K., Khanahmadi, M. & Goshadrou, A., Aug 2013, In: *Industrial Crops and Products*. 49, p. 580-585 6 p.

Chemical composition, cell wall features and degradability of stem, leaf blade and sheath in untreated and alkali-treated rice straw

Ghasemi, E., Ghorbani, G. R., Khorvash, M., Emami, M. R. & Karimi, K., Jul 2013, In: *Animal*. 7, 7, p. 1106-1112 7 p.

*Mucor indicus*: Biology and industrial application perspectives: A review

Karimi, K. & Zamani, A., Jul 2013, In: *Biotechnology advances*. 31, 4, p. 466-481 16 p.

Dry chemical processing and ensiling of rice straw to improve its quality for use as ruminant feed

Ghasemi, E., Khorvash, M., Ghorbani, G. R., Emami, M. R. & Karimi, K., Jun 2013, In: *Tropical Animal Health and Production*. 45, 5, p. 1215-1221 7 p.

Acidic dye wastewater treatment onto a marine macroalga, *Nizamuddina zanardini* (Phylum: Ochrophyta)

Esmaeli, A., Jokar, M., Kousha, M., Daneshvar, E., Zilouei, H. & Karimi, K., 1 Feb 2013, In: *Chemical Engineering Journal*. 217, p. 329-336 8 p.

Ethanol and biogas production from birch by NMMO pretreatment

Goshadrou, A., Karimi, K. & Taherzadeh, M. J., Feb 2013, In: *Biomass and Bioenergy*. 49, p. 95-101 7 p.

Ethanol and chitosan production from wheat hydrolysate by *Mucor hiemalis*

Heidary Vinche, M., Asachi, R., Zamani, A. & Karimi, K., Feb 2013, In: *Journal of Chemical Technology and Biotechnology*. 88, 2, p. 255-260 6 p.

Alkali pretreatment for improvement of biogas and ethanol production from different waste parts of pine tree

Salehian, P. & Karimi, K., 16 Jan 2013, In: *Industrial and Engineering Chemistry Research*. 52, 2, p. 972-978 7 p.

Improvement of saccharification and ethanol production from rice straw by NMMO and [BMIM][OAc] pretreatments

Poornejad, N., Karimi, K. & Behzad, T., Jan 2013, In: *Industrial Crops and Products*. 41, 1, p. 408-413 6 p.

Characterization of ionic liquid pretreated aspen wood using semi-quantitative methods for ethanol production

Goshadrou, A., Karimi, K. & Lefsrud, M., 2013, In: *Carbohydrate Polymers*. 96, 2, p. 440-449 10 p.

Enhancement of ethanol production from spruce wood chips by ionic liquid pretreatment

Shafiei, M., Zilouei, H., Zamani, A., Taherzadeh, M. J. & Karimi, K., 2013, In: *Applied Energy*. 102, p. 163-169 7 p.

Improvement of acetone, butanol and ethanol production from rice straw by acid and alkaline pretreatments  
Moradi, F., Amiri, H., Soleimani-Zad, S., Ehsani, M. R. & Karimi, K., 2013, In: *Fuel*. 112, p. 8-13 6 p.

Improvement of biogas production from pine wood by alkali pretreatment  
Salehian, P., Karimi, K., Zilouei, H. & Jeyhanipour, A., 2013, In: *Fuel*. 106, p. 484-489 6 p.

Improvement of hydrolysis and fermentation of sugarcane bagasse by soaking in aqueous ammonia and methanolic ammonia  
Hedayatkah, A., Motamedi, H., Najafzadeh Varzi, H., Ghezlbash, G., Amopour Bahnamiry, M. & Karimi, K., 2013, In: *Bioscience, Biotechnology and Biochemistry*. 77, 7, p. 1379-1383 5 p.

Efficient conversion of rice straw to bioethanol using sodium carbonate pretreatment  
Salehi, S. M. A., Karimi, K., Behzad, T. & Poornejad, N., 20 Dec 2012, In: *Energy and Fuels*. 26, 12, p. 7354-7361 8 p.

Determination of glucosamine in fungal cell walls by high-performance liquid chromatography (HPLC)  
Mohammadi, M., Zamani, A. & Karimi, K., 24 Oct 2012, In: *Journal of Agricultural and Food Chemistry*. 60, 42, p. 10511-10515 5 p.

Chitosan: A valuable byproduct of ethanolic fermentation by *rhizopus oryzae*  
Vinche, M. H., Karimi, K., Zamani, A. & Asachi, R., Oct 2012, In: *Journal of Biobased Materials and Bioenergy*. 6, 5, p. 552-557 6 p.

Alkali pretreatment of softwood spruce and hardwood birch by NaOH/thiourea, NaOH/urea, NaOH/urea/thiourea, and NaOH/PEG to improve ethanol and biogas production  
Mohsenzadeh, A., Jeyhanipour, A., Karimi, K. & Taherzadeh, M. J., Aug 2012, In: *Journal of Chemical Technology and Biotechnology*. 87, 8, p. 1209-1214 6 p.

Kinetic modeling of rapid enzymatic hydrolysis of crystalline cellulose after pretreatment by NMMO  
Khodaverdi, M., Karimi, K., Jeyhanipour, A. & Taherzadeh, M. J., Mar 2012, In: *Journal of Industrial Microbiology and Biotechnology*. 39, 3, p. 429-438 10 p.

Enhanced biogas production from rice straw, triticale straw and softwood spruce by NMMO pretreatment  
Teghammar, A., Karimi, K., Sárvári Horváth, I. & Taherzadeh, M. J., Jan 2012, In: *Biomass and Bioenergy*. 36, p. 116-120 5 p.

Optimization of baker's yeast drying in industrial continuous fluidized bed dryer  
Akbari, H., Karimi, K., Lundin, M. & Taherzadeh, M. J., Jan 2012, In: *Food and Bioproducts Processing*. 90, 1, p. 52-57 6 p.

Improvement of biogas production from different parts of pine wood  
Salehian, P. & Karimi, K., 2012.

Production of fermentable sugars by enzymatic hydrolysis of pretreated waste textile  
Gholamzad, E., Karimi, K., Masoomi, M. & Jafari, V., 2012, p. 271-272. 2 p.

Effects of lime pretreatment on biogas production from dry dairy cattle manure  
Niasar, H. S., Karimi, K., Zilouei, H., Salehian, P. & Jeyhanipour, A., Dec 2011, In: *Minerva Biotecnologica*. 23, 4, p. 77-82 6 p.

Fungal autolysate as a nutrient supplement for ethanol and chitosan production by *Mucor indicus*  
Asachi, R., Karimi, K. & Taherzadeh, M. J., Dec 2011, In: *Biotechnology Letters*. 33, 12, p. 2405-2409 5 p.

Construction and demolition lignocellulosic wastes to bioethanol

Jafari, V., Labafzadeh, S. R., Jeihanipour, A., Karimi, K. & Taherzadeh, M. J., Nov 2011, In: *Renewable Energy*. 36, 11, p. 2771-2775 5 p.

Techno-economical study of ethanol and biogas from spruce wood by NMMO-pretreatment and rapid fermentation and digestion

Shafiei, M., Karimi, K. & Taherzadeh, M. J., Sept 2011, In: *Bioresource technology*. 102, 17, p. 7879-7886 8 p.

Fermentation Inhibitors in Ethanol Processes and Different Strategies to Reduce Their Effects

Taherzadeh, M. J. & Karimi, K., 18 Jul 2011, *Biofuels: Alternative Feedstocks and Conversion Processes*. Elsevier, p. 287-311 25 p.

Bioethanol production from sweet sorghum bagasse by *Mucor hiemalis*

Goshadrou, A., Karimi, K. & Taherzadeh, M. J., Jul 2011, In: *Industrial Crops and Products*. 34, 1, p. 1219-1225 7 p.

Improvement of biogas production from oil palm empty fruit bunches (OPEFB)

Nieves, D. C., Karimi, K. & Horváth, I. S., Jul 2011, In: *Industrial Crops and Products*. 34, 1, p. 1097-1101 5 p.

Lead biosorption by different morphologies of fungus *Mucor indicus*

Javanbakht, V., Zilouei, H. & Karimi, K., Mar 2011, In: *International Biodeterioration and Biodegradation*. 65, 2, p. 294-300 7 p.

A novel process for ethanol or biogas production from cellulose in blended-fibers waste textiles

Jeihanipour, A., Karimi, K., Niklasson, C. & Taherzadeh, M. J., Dec 2010, In: *Waste Management*. 30, 12, p. 2504-2509 6 p.

Chemical characterisation and dilute-acid hydrolysis of rice hulls from an Artisan Mill

López, Y., García, A., Karimi, K., Taherzadeh, M. J. & Martín, C., Nov 2010, In: *Bioresources*. 5, 4, p. 2268-2277 10 p.

Palm date fibers: Analysis and enzymatic hydrolysis

Shafiei, M., Karimi, K. & Taherzadeh, M. J., Nov 2010, In: *International Journal of Molecular Sciences*. 11, 11, p. 4285-4296 12 p.

Simultaneous pretreatment of lignocellulose and hydrolysis of starch in mixtures to sugars

Hoseinpour, H., Karimi, K., Zilouei, H. & Taherzadeh, M. J., Nov 2010, In: *Bioresources*. 5, 4, p. 2457-2469 13 p.

Production of furans from rice straw by single-phase and biphasic systems

Amiri, H., Karimi, K. & Roodpeyma, S., 13 Oct 2010, In: *Carbohydrate Research*. 345, 15, p. 2133-2138 6 p.

Pretreatment of spruce and oak by N-methylmorpholine-N-oxide (NMMO) for efficient conversion of their cellulose to ethanol

Shafiei, M., Karimi, K. & Taherzadeh, M. J., Jul 2010, In: *Bioresource technology*. 101, 13, p. 4914-4918 5 p.

Alkaline pretreatment of spruce and birch to improve bioethanol and biogas production

Mirahmadi, K., Kabir, M. M., Jeihanipour, A., Karimi, K. & Taherzadeh, M. J., May 2010, In: *Bioresources*. 5, 2, p. 928-938 11 p.

Enhancement of ethanol and biogas production from high-crystalline cellulose by different modes of NMO pretreatment

Jeihanipour, A., Karimi, K. & Taherzadeh, M. J., 15 Feb 2010, In: *Biotechnology and Bioengineering*. 105, 3, p. 469-476 8 p.

Effects of different growth forms of *Mucor indicus* on cultivation on dilute-acid lignocellulosic hydrolyzate, inhibitor tolerance, and cell wall composition  
Lennartsson, P. R., Karimi, K., Edebo, L. & Taherzadeh, M. J., 25 Sept 2009, In: *Journal of Biotechnology*. 143, 4, p. 255-261 7 p.

Ethanol production by *Mucor indicus* and *Rhizopus oryzae* from rice straw by separate hydrolysis and fermentation  
Abedinifar, S., Karimi, K., Khanahmadi, M. & Taherzadeh, M. J., May 2009, In: *Biomass and Bioenergy*. 33, 5, p. 828-833 6 p.

Ethanol production from xylose and wood hydrolyzate by *Mucor indicus* at different aeration rates  
Millati, R., Karimi, K., Edebo, L., Niklasson, C. & Taherzadeh, M. J., Nov 2008, In: *Bioresources*. 3, 4, p. 1020-1029 10 p.

Production of ethanol by filamentous and yeast-like forms of *Mucor indicus* from fructose, glucose, sucrose, and molasses  
Sharifia, M., Karimi, K. & Taherzadeh, M. J., Nov 2008, In: *Journal of Industrial Microbiology and Biotechnology*. 35, 11, p. 1253-1259 7 p.

Pretreatment of lignocellulosic wastes to improve ethanol and biogas production: A review  
Taherzadeh, M. J. & Karimi, K., Sept 2008, In: *International Journal of Molecular Sciences*. 9, 9, p. 1621-1651 31 p.

*Mucor indicus* as a biofilter and fermenting organism in continuous ethanol production from lignocellulosic hydrolyzate  
Karimi, K., Edebo, L. & Taherzadeh, M. J., 15 Apr 2008, In: *Biochemical Engineering Journal*. 39, 2, p. 383-388 6 p.

Continuous fermentation of wheat-supplemented lignocellulose hydrolysate with different types of cell retention  
Brandberg, T., Karimi, K., Taherzadeh, M. J., Franzén, C. J. & Gustafsson, L., 1 Sept 2007, In: *Biotechnology and Bioengineering*. 98, 1, p. 80-90 11 p.

Acid-based hydrolysis processes for ethanol from lignocellulosic materials: A review  
Taherzadeh, M. J. & Karimi, K., 2007, In: *Bioresources*. 2, 3, p. 472-499 28 p.

Enzyme-based hydrolysis processes for ethanol from lignocellulosic materials: A review  
Taherzadeh, M. J. & Karimi, K., 2007, In: *Bioresources*. 2, 4, p. 707-738 32 p.

Ethanol production from dilute-acid pretreated rice straw by simultaneous saccharification and fermentation with *Mucor indicus*, *Rhizopus oryzae*, and *Saccharomyces cerevisiae*  
Karimi, K., Emtiazi, G. & Taherzadeh, M. J., 6 Dec 2006, In: *Enzyme and Microbial Technology*. 40, 1, p. 138-144 7 p.

Conversion of rice straw to sugars by dilute-acid hydrolysis  
Karimi, K., Kheradmandinia, S. & Taherzadeh, M. J., Mar 2006, In: *Biomass and Bioenergy*. 30, 3, p. 247-253 7 p.

Production of ethanol and mycelial biomass from rice straw hemicellulose hydrolyzate by *Mucor indicus*  
Karimi, K., Emtiazi, G. & Taherzadeh, M. J., Mar 2006, In: *Process Biochemistry*. 41, 3, p. 653-658 6 p.

Fed-batch cultivation of *Mucor indicus* in dilute-acid lignocellulosic hydrolyzate for ethanol production  
Karimi, K., Brandberg, T., Edebo, L. & Taherzadeh, M. J., Sept 2005, In: *Biotechnology Letters*. 27, 18, p. 1395-1400 6 p.

## Activities

### **Economic and environmental aspects of municipal solid waste biorefining to biobutanol using adsorptive sequential separation system**

Karimi, K. (Speaker) & Denayer, J. (Contributor)  
6 Jun 2024

## **Technical and Economical Aspects of Advanced Biofuel Production and Separation**

Karimi, K. (Speaker) & Denayer, J. (Contributor)

13 Oct 2022

## **Awards**

## **Projects**

### **BRGCON39: IPSU 2024: Smart Biorefinery concepts for municipal biowaste valorization in Europe**

Karimi, K. (Administrative Promotor) & Denayer, J. (Col (Co-Promotor))

9/12/24 → 8/02/25

### **IOF3032: STEP-Chem - Technological and Socio-Economic Strategies for a Sustainable Chemical Industry**

Denayer, J. (Administrative Promotor), Van Assche, T. (Col (Co-Promotor)), Karimi, K. (Col (Co-Promotor)), Oberthur, S. (Col (Co-Promotor)), Kalimo, H. (Col (Co-Promotor)) & Claeys, M. (Mandate)

1/01/25 → 31/12/29