**Dr. Debarshi Mallick Publications:**

* **Mallick D**, Poddar M.K, Mahanta P, Moholkar VS. Discernment of synergism in pyrolysis of biomass blends using thermogravimetric analysis. Bioresource Technology, 261 (2018) 294–305, DOI: 10.1016/j.biortech.2018.04.011

* **Mallick D**, Mahanta P, Moholkar VS. Co-gasification of coal and biomass blends:

Chemistry and Engineering. Fuel, 204, 2017 106-128, DOI:

[10.1016/j.fuel.2017.05.006](https://doi.org/10.1016/j.fuel.2017.05.006)

* **Mallick D**, Mahanta P, Moholkar VS. Investigations in Co–gasification of Coal/Biomass Blends in a Pilot Scale (50 kWe) Circulating Fluidized Bed Gasifier. Journal of Energy Institute, 93 (2020) 99-111, DOI 10.1016/j.joei.2019.04.005

* **Mallick D**, Mahanta P, Moholkar VS. Co-gasification of biomass blends: performance evaluation in circulating fluidized bed gasifier, Energy, 192 (2020) 116682, DOI: [10.1016/j.energy.2019.116682](https://doi.org/10.1016/j.energy.2019.116682)
* Mohite A, Bora BJ, Sharma P, Sarıdemir S, **Mallick D**, Sunil S, Ağbulut Ü. Performance enhancement and emission control through adjustment of operating parameters of a biogas-biodiesel dual fuel diesel engine: An experimental and statistical study with biogas as a hydrogen carrier. International Journal of Hydrogen Energy. 2024 Jan 2;52: 752-64.

* Bhowmik R, Das S, **Mallick D,**Gautam SS. Predicting the elastic properties of hemp fiber – A comparative study on different polymer composite, Materials Today: Proceedings, 50 (5), 2022, 2510-2514, DOI: [10.1016/j.matpr.2021.09.562](https://doi.org/10.1016/j.matpr.2021.09.562)

* **Mallick D**, Sharma P, Bora BJ, Baruah D, Bhowmik R, Barbhuiya SA,

D Balakrishnan. Mechanistic investigation of pyrolysis kinetics of water hyacinth for biofuel employing isoconversional method. *Sustainable Energy Technologies and Assessments* 57 (2023): 103175, [DOI: 10.1016/j.seta.2023.103175](https://doi.org/10.1016/j.seta.2023.103175)

* **Mallick D**, Mahanta P, Moholkar VS. Synergistic Effects in Gasification of Coal/Biomass Blends: Analysis and Review. In: De S., Agarwal A., Moholkar V., Thallada B. (eds) Coal and Biomass Gasification. Energy, Environment, and Sustainability. Springer, Singapore, 2018, pp. 473–497.

* **Mallick D**, Buragohain B, Mahanta P, Moholkar VS. Gasification of Mixed Biomass: Analysis Using Equilibrium, Semi-equilibrium, and Kinetic Models. In: De S., Agarwal A., Moholkar V., Thallada B. (eds) Coal and Biomass Gasification. Energy, Environment, and Sustainability. Springer, Singapore, 2018, pp. 223–441.

* **Mallick D**, Sharma SD, Kushwaha A, Brahma HS, Nath R, Bhowmik R. Emerging commercial opportunities for conversion of waste to energy: aspect of gasification technology. In: Hussain CM., Singh S., Goswami L. (eds) Waste-to-Energy

Approaches Towards Zero Waste, Elsevier. 2021, Pp:105-127, [DOI: 10.1016/B9780-323-85387-3.00012-4](https://doi.org/10.1016/B978-0-323-85387-3.00012-4)

* Kushwaha A, Bajgai RC, **Mallick D**, Singh A, Goswami L, Bhan U, Hussain CM. Biohythane production from organic waste: challenges and techno-economic perspective. In: Hussain CM., Singh S., Goswami L. (eds) Waste-to-Energy

Approaches Towards Zero Waste, Elsevier. 2021, Pp: 373-387, [DOI: 10.1016/B9780-323-85387-3.00011-2](https://doi.org/10.1016/B978-0-323-85387-3.00011-2)

* **Mallick D**, Goswami M, Bhuyan D. Pyrolysis Characterization of Biomass Feedstock Using Thermogravimetric Analysis In Lecture Notes in Mechanical Engineering, Springer, 2022, DOI: 10.1007/978-981-19-4388-1

* **Mallick D**, Baruah D, Mahanta P, Moholkar VS. “A comprehensive kinetic analysis of bamboo waste using Thermogravimetric analysis”, Proc. 2nd International Conference on Energy Power and Environment (ICEPE 2018), NIT Meghalaya, India. IEEE, DOI: 10.1109/EPETSG.2018.8658672

* Baruah D, **Mallick D**, Kalita P, Moholkar VS. “Pyrolysis kinetics of elephant grass using thermogravimetric analysis”, Proc. 2nd International Conference on Energy Power and Environment (ICEPE 2018), NIT Meghalaya, India. IEEE, DOI:

10.1109/EPETSG.2018.8658640

* **Mallick D**, BJ Bora, SA Barbhuiya, R Banik, J Garg, AK Sarma, R and Gogoi” Detailed study of pyrolysis kinetics of biomass using thermogravimetric analysis”

International conference on Current Trends in Renewable and Alternate Energy (ICRAE 2018), AIP Conference Proceedings 2091, 020014; [https://doi.org/10.1063/1.5096505.](https://doi.org/10.1063/1.5096505)

* **Mallick D**, Goswami M, Bhuyan D. Pyrolysis Characterization of Biomass Feedstock Using Thermogravimetric Analysis. “International Conference on Thermofluids and Manufacturing Science”. KIIT. Bhubaneswar, India, January 2425, 2022.

* **Mallick D**, Mahanta P, Moholkar VS. “Pyrolysis analysis of Sawdust, Coal and the blends of coal and Sawdust using Thermogravimetric analyzer”, Proc. 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power, Allahabad, India, 2016, pp. 110.

* **Mallick D**, Mahanta P, Moholkar VS. “Effects of operating parameters in a

Circulating Fluidized Bed (CFB) Biomass Gasifier”, Proc. 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power, Allahabad, India, 2016, pp. 106 - 107.

* **Mallick D**, Baruah D, Mahanta P, Moholkar VS. “Experimental studies on coal/biomass blends in Circulating Fluidized Bed Gasifier” Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), February 01- 04, 2018, Indian Institute of Technology Guwahati, India.

* Baruah D, **Mallick D,** Kalita P, Moholkar VS. “Kinetic studies on coal/biomass blends for co-gasification” Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), February, 01-04, 2018, Indian Institute of Technology Guwahati, India.

* **Mallick D**, Mahanta P, Moholkar VS. “Performance Evaluation of Co-gasification of

Low-Grade Coal and Sawdust in a Circulating Fluidized Bed Gasifier” Proc. National Conference on Recent Science and Technology (NCRAST 2018), March 15-17, 2018, Assam Science and Technology University, Guwahati, India.