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# Publications

The following journals/book chapters/conference proceedings have been published from this thesis so far:

Journals:

1. Kumar, V.D., Chandra, L., Mukhopadhyay, S. and Shekhar, R., 2023. Simulated Experimental Assessment of a Laboratory-Scale Solar Convective Furnace System. *Journal of Solar Energy Engineering*, 145(4), p.041011

2. Kumar, V.D., Singh, G., Chandra, L., Mukhopadhyay, S. and Shekhar, R., 2022. A Multi-Zone Unsteady Heat Transfer Model for an Open Volumetric Air Receiver: A Step Towards Scale-Up and Design Optimization. *International Journal of Heat and Mass Transfer*, 191, p.122747.

3. Kumar, V.D., Upadhyay, V.K., Singh, G., Mukhopadhyay, S. and Chandra, L., 2022. Open volumetric air receiver: An innovative application and a major challenge. *Wiley Interdisciplinary Reviews: Energy and Environment*, 11(1), p.e404.

4. Singh, G., Kumar, V.D., Chandra, L., Shekhar, R. and Ghoshdastidar, P.S., 2021. One-dimensional zonal model for the unsteady heat transfer analysis in an open volumetric air receiver. *Journal of Thermal Science and Engineering Applications*, 13(1), p.011011

Conferences:

1. Kumar, V.D., Chandra, L., Mukhopadhyay, S. and Shekhar, R., 2021. Experimental Evaluation of a Pebble-bed Thermal Energy Storage for Solar Convective Furnace. In Proceedings of the 26thNational and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference December 17-20, 2021, IIT Madras, Chennai-600036, Tamil Nadu, India. Begel House Inc.

2. Kumar, V., Mukhopadhyay, S., Chandra, L. and Shekhar, R., 2019. Experiment and One-dimensional Mathematical Model for the Heat Transfer in a Solar Convective Furnace. In Proceedings of the 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2019). Begel House Inc.

3. Singh, G., Kumar, V., Chandra, L., Shekhar, R. and Ghoshdastidar, P.S., 2019. Development of a one-dimensional zonal model for the evaluation of an open volumetric air receiver. In Proceedings of the

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Book Chapters:

1. Kumar, V.D., Chandra, L., Sharma, P. and Shekhar, R., 2022. Modes of Operation, Design, and Experiments in a Laboratory Solar Convective Furnace System. In REWAS 2022: Energy Technologies and CO2 Management (Volume II) (pp. 105-113). Springer, Cham.

2. Kumar, V.D., Surolia, Y., Mukhopadhyay, S. and Chandra, L., 2021. Experimental Investigation of a Sensible Thermal Energy Storage System. In New Research Directions in Solar Energy Technologies (pp. 365-382). Springer, Singapore.