



Advances in Deep Bed Filtration: State of the Art and Challenges for the Future

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Message from the Guest Editors

The filtration of solid particles using deep-bed filters is one of the principal methods employed to achieve the accurate removal of micrometer and submicrometer-sized particles from a fluid stream; this is due to its high efficiency and low resistance. The quality of a filter can be described using three parameters, namely, the pressure drop on the filter, its separation efficiency, and retention capacity.

In recent years, numerous fibrous media have been used for manufacturing, protective and filtering materials. Moreover, the global production of fibrous materials has expanded significantly. Therefore, the development of novel biodegradable, recyclable or regenerable filter materials has become a crucial challenge.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: filter design, manufacturing, media characterisation, mathematical modelling and applications.

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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