Editorial

Drying is essentially a cross- and inter-disciplinary field which as a minimum requires coupling of transport phenomena with material science. Drying R&D has always followed multi-disciplinary approach long before it became a buzz word. It has always been at the cross-over zone between engineering and science. While in early years the emphasis was on engineering and technology and know-how, the balance now is tipping in favor of more science although engineering efficient drying systems remains a daunting task. Design and scale-up still requires considerable empiricism in view of the diverse properties of materials to be dried to varying specification in a bewildering assortment of drying equipment.

Typically open literature deals with know-why of drying processes and properties of dried materials. Mathematical modeling and development of reliable design, analysis and optimization tools is one of the objectives of such studies. Almost all of such published R&D originates from academic institutions. All users of these results are necessarily based in industry. Thus, there is a gap between the producer and user of drying R&D. This is true of many other research areas as well. For reasons of commercial interests it is unlikely that industrial R&D will appear openly to any measurable extent. However, it is necessary to make academic drying research relevant by consulting with potential industrial users.

In the past I have repeatedly stressed the need for university-industry interaction for the above-mentioned reasons. Academic research for its own sake, or for other academics to utilize, cite and publish additional papers, is not a sustainable model. Such “closed loop” approach to engineering approach is bound to fail at some point in time unless we make industrial users part of the loop. As potential beneficiaries industry needs to take a pro-active role and guide-or even direct to some extent- research in drying so that it is more relevant.

Clearly, since academic research needs to be publishable, only generic problems of wider applicability and interest can be handled via such an approach. Even identifying general problems of interest to industry will help academics formulate meaningful and yet challenging research problems. This journal is making a calculated attempt to provide a platform for experts to identify and publicize R&D needs and opportunities in diverse industrial sectors. I hope that this will help guide newcomers to this field develop new research problems and solve them using the latest developments in science and scientific tools for modeling and measurement.

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