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Preface

It gives me great pleasure to present the second issue of *The International Journal of Wettability Science and Technology (IJWST)*. Whilst collating the manuscripts for this issue, it has been very encouraging to see the world of wettability science vibrant and growing, with wettability science having many applications, in various fields. This is especially seen within this second issue where we have some very interesting works surrounding electrodeposition of zirconium thin films on aluminium, laser surface engineering of polymeric materials, coffee ring transformations for drying droplets on metal substrates and the application of surface tensiometry to mud therapies.

The work of Dubinov *et al.* has provided a new mechanism by which the well-known "coffee ring effect" can be controlled on metal substrates. This is highly significant as it can enable the discrete control of drying colloidal droplets through the application of pulsed electric discharges. This is a very exciting piece of work as it could be applied to many applications where the control of drying patterns, from evaporating colloidal droplets, is crucial to the effectiveness of the application. One such application, as stated by Dubinov *et al.* is inkjet printing.

Whilst it has been demonstrated that many surface engineering techniques can modify the wettability characteristics of material surfaces, Farid *et al.* have demonstrated how electrodeposition of superhydrophobic zirconium-based thin films on aluminium can not only modify wettability characteristics but considerably enhance the corrosion properties of aluminium. This will likely have a major impact on the amount and types of applications that aluminium can be used for, especially considering such materials in marine-based applications. Research into the manipulation of multiple surface parameters, through the application of surface engineering techniques, is growing and it will be very exciting to see how this field of research will further develop in the near future.

Rossi has demonstrated through his work how wettability science and associated technologies, through the application of surface tensiometry, can be applied to mud therapies to assist in quantifying the efficacy of these pro-

tocols. Furthermore, this approach has shown how the technique can be personalized to determine the levels of hydration of skin, as demonstrated with the various test subjects within the work. This is a very interesting piece of work as it demonstrates the breadth of applications which can be studied through the application of wettability science. This work also introduces a new triad of biocompatible liquids which are proposed to be implemented for any future studies of geomaterials.

The Editorial Board and I believe that you will find this second issue of *The International Journal of Wettability Science and Technology (IJWST)* stimulating and of a high scientific quality. It is due to high quality manuscripts, such as these, that will make the *IJWST* successful. With this in mind, the Editorial Board and I would like to invite and encourage you to submit your own manuscripts to the *IJWST*.

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