Contribution ID: **606** Type: **Poster Presentation**

Print Quality and Particles: pore-scale simulations of particles/liquid interaction with printing substrate

Tuesday, 31 May 2022 15:20 (1h 10m)

Application of inkjet printing as a versatile technique has gain a great attention during last decade. Not only in paper printing industry but also in pharmaceuticals, electronics, sensors, etc. In order to deliver the highest print quality possible, the droplet landing, distribution and penetration into the media needs to be well controlled. In this paper, we studied the ink, containing liquid phase but also the Latex particles, and the coated media interaction during printing process. Pore-scale two-phase flow simulation was conducted to evaluate the liquid-phase of ink infiltration into the media. While DEM was used to simulate particle-particle and particle-media interactions. The results of model provide a unique overview about pore-scale detailed phenomena happening during ink droplet landing on the coated media.

Acceptance of the Terms & Conditions

Click here to agree

MDPI Energies Student Poster Award

Yes, I would like to submit this presentation into the student poster award.

Country

Netherlands

References

Time Block Preference

Time Block A (09:00-12:00 CET)

Participation

In person

Primary authors: ASLANNEJAD, Hamed (Utrecht University); RAOOF, Amir (Utrecht University)

Presenter: ASLANNEJAD, Hamed (Utrecht University)

Session Classification: Poster

Track Classification: (MS16) Fluid Interactions with Thin Porous Media