3D Analysis of Real Porous media

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OBJECTIVE

Develop computational tools to understand flow and heat transfer characteristics of "real" porous media
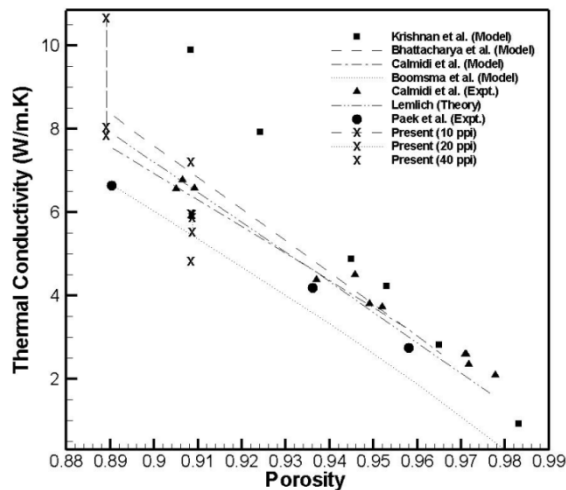
IMPACT

- Understanding of packing in porous media such as foams and sintered material
- Accurate estimation of thermal properties to mimic experiments
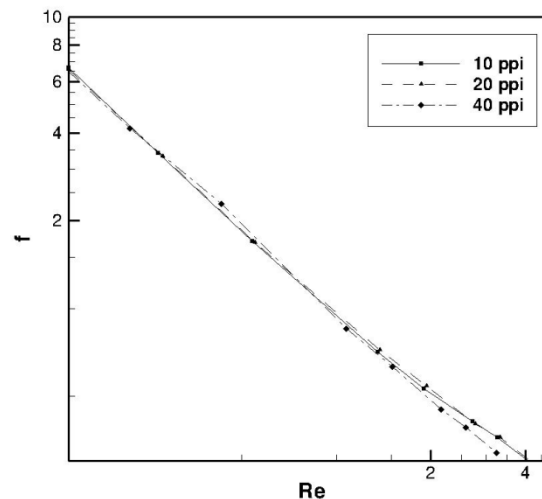- Reverse Engineering to enhance thermal performance

APPROACH

Effective Thermal Conductivity

Friction factor vs. Reynolds number

Selected Publications

- K. K. Bodla, J. Y. Murthy, S. V. Garimella, "XMT Based Direct Simulation of Flow and Heat Transfer Through Open-cell Aluminum Foams", ITHERM-2010 (Abstract ID :2618)
- S. krishnan, J. Y. Murthy, S. V. Garimella, " Direct Simulation of Transport in Open-cell Metal Foam", JHT, 2006

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