B I O G R A P H Y

Mathew D. Ingraham, Ph.D.

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Dr. Ingraham is currently a Senior Member of Technical Staff at Sandia National Laboratories, working in the Geomechanics department. His Ph.D. work focused on the effect of the intermediate principal stress on failure and deformation band formation in sandstone. . His current research focuses on the interaction of proppant with shale, and development of constitutive properties for shale. He has also worked on developing model parameters for domal salt in the Strategic Petroleum Reserve; bedded salt, crushed salt, and surrogate waste for the Waste Isolation Pilot Plant; and determination of elastic, plastic, and poroelastic parameters for shales and sandstones.

An expert in experimental methodology and constitutive model development, Mathew also works on many projects involving traditional engineering materials and systems at Sandia including consulting on the design and test methodology for the Sandia Fracture Challenge. A double blind study looking at testing and modeling ductile materials failing in non-traditional means (tearing).

Mathew was elected to the American Rock Mechanics Association Future Leaders program in 2015.

Education: Dr. Ingraham received his Bachelor's degree in mechanical engineering from Lafayette College in 2006. His Masters and Doctorate, both in mechanical engineering, were received from Clarkson University in 2008 and 2012 respectively, under the advisement of Dr. Kathleen Issen.

Noteworthy publications: Ingraham, MD, Issen, KA, Holcomb, DJ, "Response of Castlegate sandstone to true triaxial states of stress" J. Geophys. Res. Solid Earth, 118 (2013) p. 536, doi:10.1002/jgrb.50084.

Ingraham, MD, Issen, KA, Holcomb, DJ "Use of acoustic emissions to investigate localization in high-porosity sandstone subjected to true triaxial stresses" Acta Geotechnica, 8 (2013) p.645, doi: 10.1007/s11440-013-0275-y

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