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Farhod Abdullayev* (farkhad.abdullaev@ndsu.edu), Department of Mathematics, North Dakota State University, NDSU Dept. #2750, P.O. Box 6050, Fargo, ND 58108-6050. A variational characterization of the effective yield set for ionic polycrystals.

The effective yield set for ionic polycrystals is characterized by means of a family of variational principles associated to supremal functionals acting on matrix-valued divergence-free fields. Joint work with Marian Bocea (Loyola University Chicago) and Mihai Mihailescu (University of Craiova, Romania). (Received September 15, 2011)