Acceptance of the Dana Medal of the Mineralogical Society of America for 2016

PATRICK CORDIER¹

¹University of Lille 1, Unite Materiaux et Transformations, Bat C6, FR-59655 Villeneuve d'Ascq cedex, France

First I want to thank David Mainprice for this citation, the colleagues who supported this nomination, and the Dana medal committee for honoring me. I also would like to express my appreciation to the Mineralogical Society of America for being an emblem for our discipline on an international standpoint.

An award like this medal recognizes much more than the work of one person.

It highlights the vitality of a scientific field at a given time. Science is not a smooth, continuous process. It occurs by bursts. It has been recently a major discovery in materials science that the same applies to plastic deformation, which results from avalanches of dislocations at the microscopic scale. After a long period of stagnation, facing the difficulty of scaling up from individual defects to their collective behavior, this field is now seeing many new ideas and concepts that must be applied to minerals. It is the right time to acknowledge the new role of numerical modeling and the importance of doing science with numbers. Numerical experiments shed new light, generate new questions, and call for novel experimental approaches with innovative characterizations in an exciting, never-ending spiral. This excitement is a profound source of pleasure and happiness. Times are difficult, and it is important to remember that science can be fun and a profound source of intellectual entertainment. Just as an illustration, before coming to this reception, I spent the afternoon at the AGU Fall Meeting to present a poster on the disclinations, i.e., to defects that we used to overlook in research and teaching for so many years. "Only fools never change their minds...".

Before all, it's time to remember that in science an individual is just nothing. I came to research for the taste of knowledge and understanding, but the people are the most important and provided the best reward I could ever receive. At the beginning are mentors and supervisors and their guidance is essential. It is my pleasure here to acknowledge the legacy of Jean Claude



Doukhan who taught me electron microscopy, and much more! Then slowly builds a rich network of collaborators and friends. I am delighted that tonight my companion of many years, Philippe Carrez, is here. Without him, his expertise and his enthusiasm, the RheoMan project would have never seen light. It is also a great pleasure to see here close collaborators as well as some young colleagues who recently trusted me and joined our group. Through them, I express my gratitude to all those who accompanied me during all these years. Thank you all!