

DISTINGUISHED MEMBER AWARD

The Distinguished Member Award of The Clay Minerals Society was made to Professor Joe L. White at the 27th annual meeting of The Clay Minerals Society in Columbia, Missouri, October 8, 1990. The following introduction was made on behalf of the recipient.

INTRODUCTION OF JOE L. WHITE

CHARLES B. ROTH



Joe L. White received his B.S. and M.S. degrees in soil science at Oklahoma State University before continuing his graduate studies under the tutelage of Professor M. L. Jackson at the University of Wisconsin. After receiving his doctorate in 1947 he joined the staff of Purdue University's Department of Agronomy where he remained for an illustrious 41-year career. During this time he authored or co-authored over one hundred sixty papers.

The areas of research covered by Joe, his students and associates are many. They include: (1) quantitative X-ray diffraction analysis of soil minerals, (2) reactions of layer silicates with molten salts, (3) clay-organic interactions, (4) infrared spectroscopy of minerals, (5) synthesis, structure, properties and behavior of aluminum hydroxycarbonate, and (6) application of fiber optic Doppler anemometry (FODA) to the study of rheological properties of aluminum hydroxide gels.

These last two areas of Joe's research have been the

result of collaborative studies with Dr. Stanley L. Hem of the Department of Industrial and Physical Pharmacy, Purdue University. This research on the nature and properties of amorphous aluminum hydroxide gels led to the establishment of the role of the carbonate ion in inhibiting crystallization of aluminum hydroxide. This work has provided the rationale and basis for all U.S. producers of aluminum hydroxide gels for pharmaceutical use as an antacid to adopt precipitation processes that incorporate carbonate into the gel structure. These principles have also provided a basis for a better understanding of aluminum toxicity in soils and for a reevaluation of liming recommendations. Together with Stan, Joe holds three U.S. patents and several foreign patents on processes and compositions of stable, dried aluminum hydroxide gels.

Mr. President, it gives me great pleasure to present Dr. Joe L. White as the 1990 Distinguished Member of The Clay Minerals Society.