CH-1003 REV. 8-80

DUPONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

CHEMICALS AND PIGMENTS DEPARTMENT
JACKSON LABORATORY

R. S. Weis, B-17202

January 28, 1983

J. G. ISHIKAWA
C&P
B-16234

RESEARCH ACCOMPLISHMENTS

Attached is the text and detail list on "New Quinacridone Pigments for High Solids Enamels."

P. A. WEISS

PAW/jmg

Attachment

N 26958

NEW QUINACRIDONE PIGMENTS FOR HIGH SOLIDS ENAMELS

Current automotive grade quinacridone products were developed for optimum performance in the low solids lacquers and enamels in use during the 1970's. Since 1980, automotive paint manufacturers have been developing new high solids enamel systems that minimize solvent discharge to the atmosphere to comply with existing and pending governmental regulations. Many of our most important quinacridone products cannot be used in high solids enamels because they contribute to high paint viscosity and poor film aesthetics.

Du Pont has found that the rheological performance of quinacridone pigments can be significantly improved by controlling the size, size distribution, shape and surface polarity of the pigment particles. A unique process for particle size control has been developed in which very small pigment particles of high surface energy are grown, under shear (milling) in the presence of a solvent/water emulsion, to a nonacicular particle of optimum size and narrow size distribution. Pigments produced by this new technology have provided a 10-fold reduction in paint viscosity vs. conventional products. This reduction in viscosity translates into improved paint yields and a significantly improved paint film aesthetics. The first quinacridone product made by this process will be commercialized in 2Q 1983.

N 26958.01

P. A. Wriede/jg
January 28, 1983

RESEARCH ACCOMPLISHMENTS AND MAJOR PROGRAMS STATUS

Year of Accomplishment or Date of Last Revision 1982

Department Chemicals & Pigment

Technology Area

- [X] Chemical Process
- [ ] Electronics
- [ ] Life Sciences
- [ ] Polymers
- [ ] Petroleum
- [ ] Coal
- [ ] Other

Accomplishment Classification

- [X] New Product
- [X] New Process
- [ ] New Product Application
- [ ] Scientific Contribution
- [ ] Environmental Quality

Related Major Businesses (up to three) Automotive Finishes (F&FP)

Contact for Further Detail

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(Location) Jackson Laboratory

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Timing of Business Significance

- [X] 2 Years
- [ ] 2-5 Years
- [ ] 5 Years

Significance:

	Scientific	Business
Outstanding		
Important		X
Useful	X	
Little		

N 26958.02

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Patent Status

___ Granted
_X_ Filed
___ No Application

Inventors Named on Application E. E. Jaffe

Publication Status

___ Published
___ Submitted
___ Being Written
_X_ Not Appropriate
___ Secret

Authors on Papers

Information Restriction

_X_ Du Pont only
___ Open

PAW/jmg
1/28/83