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Yin et al.

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(54) **PULSED VOLTAGE SURGE RESISTANT
MAGNET WIRE**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

OTHER PUBLICATIONS

Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

(63) Continuation of application No. 08/488,606, filed on Jun. 8, 1995, now abandoned.

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(51) **Int. Cl.**⁷ **H01B 7/00**

(52) **U.S. Cl.** **174/110 R; 428/372**

(58) **Field of Search** 174/110 R, 110 N,
174/116, 118, 106 SC, 127; 428/372, 379,
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(57) **ABSTRACT**

A pulsed voltage surge resistant magnet wire having a conductor and a continuous and concentric and flexible uniform coat of insulation material superimposed on the conductor. The insulation material has an effective amount of a particulate filler material dispersed throughout the material to increase the pulsed volt surge resistance of the insulation material by at least ten-fold in comparison testing at 20 kHz, 0.721 kV per mil, 50% duty cycle from about 30° C. to about 130° C. with rise times of about 83 kV per microsecond. The particulates of the filler have a size from about 0.005 microns to about 1.0 microns.

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36 Claims, 1 Drawing Sheet

