

## Patents

1. "Graphite Composite Cookware," L. D. Woolf, U. S. Patent 4,541,411, issued September 17, 1985.
2. "Thermally Stabilized Superconductors," L. D. Woolf, U. S. Patent 4,623,862, issued November 18, 1986.
3. "High Heat Capacity Composites for a Superconductor," L. D. Woolf and J. R. Purcell, U. S. Patent 4,647,888, issued March 3, 1987.
4. "Anemometer Having a Graphite Fiber Hot Wire," L. D. Woolf, U. S. Patent 4,648,271, issued March 10, 1987.
5. "Coupled Heterostructure Superlattice Devices," T. Ohkawa and L. D. Woolf, U. S. Patent 4,665,412, issued May 12, 1987.
6. "Photothermophotovoltaic Converter," L. D. Woolf, U. S. Patent 4,746,370, issued May 24, 1988.
7. "Solar Cell with Low Infra-Red Absorption and Method of Manufacture," L. D. Woolf and J. C. Bass, U. S. Patent 4,773,945, issued September 27, 1988.
8. "Nickel-Based Substrate for Ceramic Superconductor," L. D. Woolf, W. A. Raggio and F. H. Elsner, U. S. Patent 5,006,507, issued April 9, 1991.
9. "Substrate for Ceramic Superconductor," L. D. Woolf, F. H. Elsner, W. A. Raggio, W. R. Johnson, and T. Ohkawa, U. S. Patent 5,047,389, issued September 10, 1991.
10. "Apparatus and Method for Manufacturing a Ceramic Superconductor Coated Metal Fiber," L. D. Woolf, F. H. Elsner and W. A. Raggio, U. S. Patent 5,108,982, issued April 28, 1992.
11. "Substrate for Ceramic Superconductor with Improved Barrier," L. D. Woolf, F. H. Elsner, and W. A. Raggio, U. S. Patent 5,102,865, issued April 7, 1992.
12. "Nickel-Based Substrate for Ceramic Superconductor," L. D. Woolf, W. A. Raggio, and F. H. Elsner, U. S. Patent 5,006,507, issued April 9, 1991.
13. "Fabrication of Silver Coated High Temperature Ceramic Superconductor Fiber With Metal Substrate," L. D. Woolf, M. V. Fisher, W. A. Raggio, and F. H. Elsner, U. S. Patent 5,118,663, issued June 2, 1992.
14. "Production of a Superconductor Powder Having a Narrow Melting Transition Width Using a Controlled Oxygen Atmosphere," L. D. Woolf, F. H. Elsner, and C. H. Shearer, U. S. Patent 5,149,684, issued September 22, 1992.
15. "Anhydrous Electrophoretic Silver Coating Technique," W. A. Raggio, F. H. Elsner and L. D. Woolf, U. S. Patent 5,073,240, issued December 17, 1991.
16. "Process for Soldering Superconductor Fibers Into a Copper Channel," L. D. Woolf, C. H. Shearer, and F. H. Elsner, U. S. Patent 5,123,586, issued June 23, 1992.

17. "Process for Non-destructive Heat Treatment of Spooled Silver Coated High Temperature Superconductor," L. D. Woolf, U. S. Patent 5, 140,006, issued August 18, 1992.
18. "Nickel-Based Substrate for Ceramic Superconductor," L. D. Woolf, W. A. Raggio and F. H. Elsner, U. S. Patent 5,164,360, issued November 17, 1991.
19. "Method and Apparatus for Fabricating a Multifilamentary Wire," M. V. Fisher, K. M. Schaubel, L. D. Woolf, R. A. Olstad, and W. A. Raggio, U. S. Patent 5,200,391, issued April 6, 1993.
20. "Method for Heat Treating Long Lengths of Silver Clad High Temperature Superconductor," L. D. Woolf and R. A. Olstad, U. S. Patent 5,660,541, issued August 26, 1997.
21. "Compositions for Melt Processing High Temperature Superconductor," L. D. Woolf, U. S. Patent 5,872,081, issued February 16, 1999.
22. "Method and Apparatus for Fabricating Panels Used for the Active Control of Surface Drag," S. I. Tsunoda, T. M. Bohanon, M. H. Horner, and L. D. Woolf, U. S. Patent 6,220,549, issued April 24, 2001.
23. "Methods of Manufacturing Quantum Well Materials," L. D. Woolf, U. S. 8,242,348B2, issued August 14, 2012.
24. "Reflective Coating, Pigment, Colored Composition, and Process of Producing a Reflective Pigment," L. D. Woolf, U. S. Patent 8,932,724 B2, issued: Jan. 13, 2015
25. "Material Compositions for Lightning Strike Protection," L. Woolf, K. Spinar, and T. McGovern, U. S. Patent 9,963,599 B2, issued: May 8, 2018.
26. "Near Infrared Reflective Coatings, Pigments, and Colored Compositions," L. D. Woolf, U. S. Patent 10155871, issued Dec. 18, 2018.

#### **Patent Applications**

1. "One-way imaging optical window film," L. D. Woolf and K. P. Norton, U. S. Patent Application 20020118460, August 29, 2002.