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Liquid Crystals: From Discovery to Products

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Liquid crystals, constituting a new phase of matter, were discovered in 1888. They remained a scientific curiosity until the late 1960s, when liquid crystal displays were invented by Heilmeyer at RCA and Fergason at Kent State University. Today, LCDs dominate the flat panel display industry, with production primarily in the Far East. In this talk, I will briefly review the history of liquid crystals and LC devices, discuss emerging LC technologies and speculate on their commercial potential. I will outline new directions in liquid crystal research and describe some of the remarkable new products that may result. I will conclude by considering the connection between support for basic and applied research and successful product commercialization.