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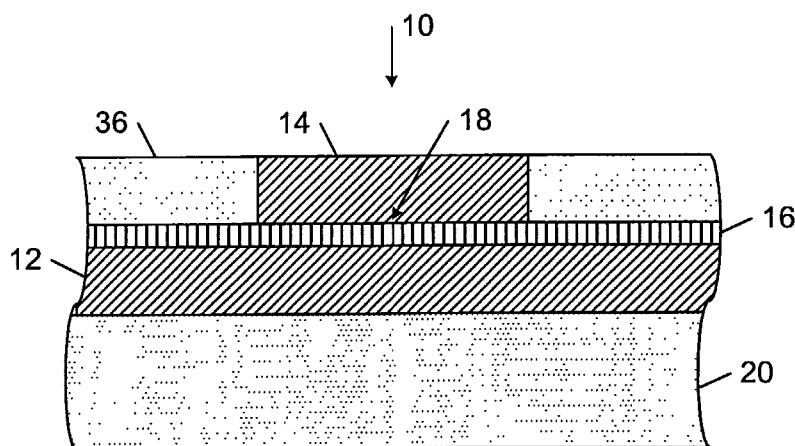
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(54) Title: MOLECULAR MEMORY SYSTEMS AND METHODS



(57) Abstract: A molecular memory system that includes a protective layer that is disposed over a molecular recording layer is described. The protective layer enables a scanning probe to write information to and read information from a molecular memory element by direct electrical contact without substantial risk of damage to either the scanning probe or the molecular recording medium. In this way, the invention avoids the high emission currents, which may damage the probeelectrode or the recording media, or both, and avoids other difficulties often associated molecular memory systems with noncontacting probe electrodes.



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