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A New Water-based Liquid Scintillator for Large Neutrino Physics[1]

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A new type of scintillating liquid based on water has been developed at Brookhaven National Laboratory (Chemistry & Physics). The concept, preparation, and properties of this liquid, and how it could be used for a very large, but economical detector will be discussed in the talk. The applications of such a detector range from fundamental physics such as nucleon decay and neutrino physics to physics with broader application such as neutron detection. We will briefly describe the scientific requirements of these applications, and how they can be satisfied by this new material.

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