

Abstract Submitted  
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**Electron EDM searches based on alkali-metal- or alkaline-earth-metal-bearing molecules**<sup>1</sup> EDMUND MEYER, JOHN BOHN, JILA — We introduce four new molecules - YbRb, YbCs, YbSr<sup>+</sup>, and YbBa<sup>+</sup> - that may prove fruitful in experimental searches for the electric-dipole moment (EDM) of the electron. These molecules can, in principle, be prepared at extremely low temperatures by photoassociating ultracold atoms and therefore may present an advantage over molecular-beam experiments. Here we discuss properties of these molecules and assess the effective electric fields they contribute to an electron EDM measurement.

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