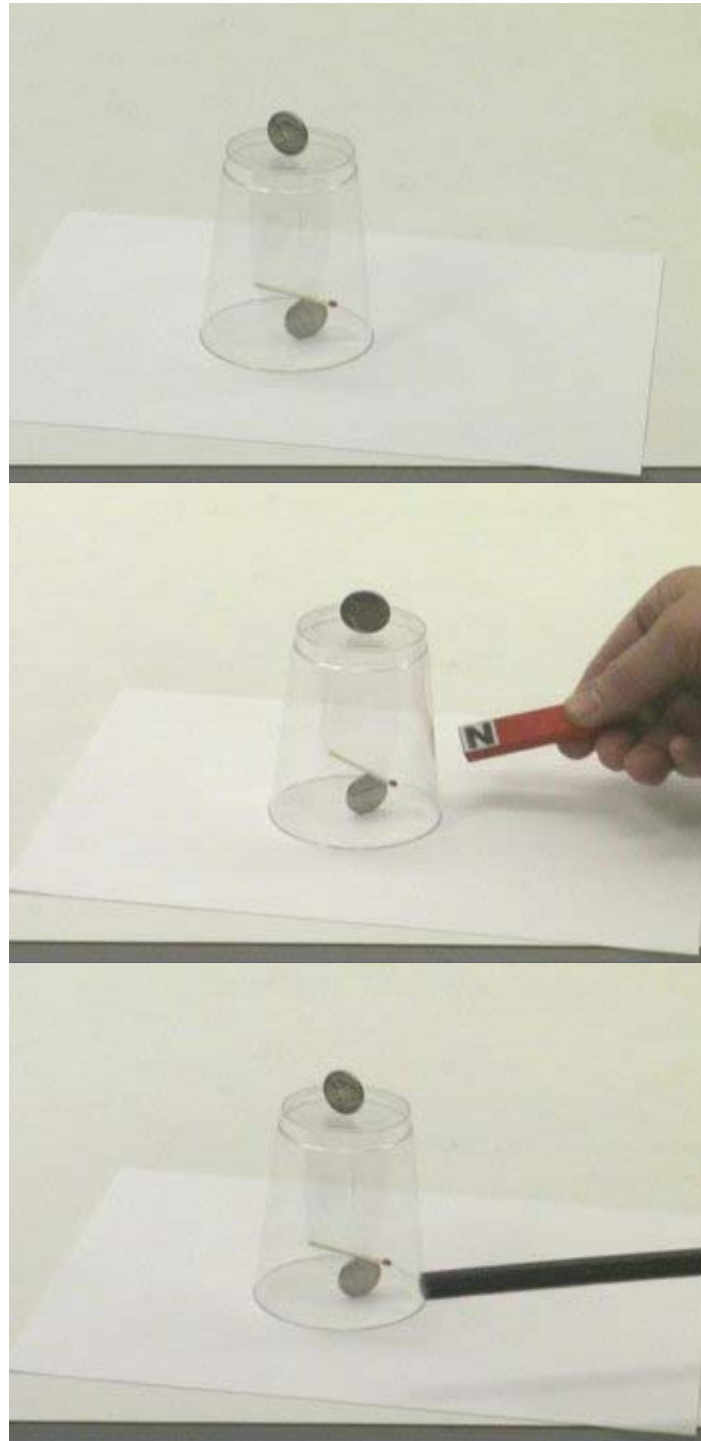


Answer #243

The answer is (c): move a charged rod near the cup. The electric field of the rod will permeate the cup, cause separation of charge in the wooden matchstick, and pull the matchstick off the nickel, as seen in a video below. All of the selections will be tried in order.



This is similar to the behavior of a well-balanced wooden 2" x 4" board on a pivot when a charged rod is brought close, as in [Question #131](#). This result, also responsible for the conversion of microwaves to heat in a microwave oven, is a direct result of water being a "polar" molecule.

[Archive 13](#)

[Question of the Week](#)

[Outreach Index Page](#)

[Lecture-Demonstration Home Page](#)



For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address given on the [Lecture-Demonstration Home Page](#).