Contact: Michael Bernstein
202-872-4400
m_bernstein@acs.org

*FOR IMMEDIATE RELEASE:* Science for Kids

**Teaching old discs new tricks: A new spin on CDs and DVDs — as high-tech lab tools**

The next time you rip a CD onto that shiny new iPod or cozy up with a DVD movie, give this some thought: Scientists have found a surprising new job for compact discs and players. Those silvery wafers of plastic may be taking a spin in a laboratory near you!

Scientists in Spain found a way to use CDs, DVDs and disc players as laboratory tools. Some of them may take a spin one day testing blood or urine to make sure people stay healthy. In the future, others might identify mysterious substances found at crime scenes, and help find the criminal.

Dr. Angel Maquieira led the research team. These scientists used a cheap, portable compact disc player and CDs to build an early model of a compact disc lab unit. Dr. Maquieira coated an ordinary CD with special chemicals and three pesticides used to kill harmful insects. He put that CD into a Discman and pushed "play." The laser light in the player that normally reads a CD could detect differences between each pesticide. When the information from the CD player was sent to a computer, it correctly identified each pesticide.

The scientists believe that lots of other chemicals can be identified in the same way with these cheap, simple recycled tools. And since CDs, DVDs and their players are so light and compact, they could be taken anywhere without much fuss. It looks like you can teach an old disc new tricks!

The new study will appear in the American Chemical Society's journal *Analytical Chemistry*, a magazine for scientists.

The American Chemical Society — the world's largest scientific society — is a nonprofit organization chartered by the U.S. Congress and a global leader in providing access to chemistry-related research through its multiple databases, peer-reviewed journals and scientific conferences. Its main offices are in Washington, D.C., and Columbus, Ohio.

— Adam Dylewski

– more –

Note to news media

Information in this press release is protected by copyright, and must be attributed to the journal *Analytical Chemistry* or the American Chemical Society.

Angel Maquieira, Ph.D., is with the Institute of Applied Molecular Chemistry and the Center for Nanotechnology in Valencia, Spain. For news media use only, and not for publication, Maquieira can be contacted at:
Phone: +34-963877342
Fax: +34-963879349
E-mail: amaquieira@qim.upv.es

For a full text of Maquieira's paper, "Microimmunoanalysis on Standard Compact Discs to Determine Low Abundant Compounds":

DOWNLOAD PDF
http://pubs.acs.org/cgi-bin/sample.cgi/ancham/asap/pdf/ac070328b.pdf
DOWNLOAD HTML
http://pubs.acs.org/cgi-bin/sample.cgi/ancham/asap/html/ac070328b.html