



CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

MONTHLY PROGRAM MEETING, JOINT WITH
LOYOLA UNIVERSITY, NORTH CENTRAL COLLEGE, AND OAKTON COMMUNITY COLLEGE

FRIDAY, APRIL 21, 2017

“How Do We Design Organic and Inorganic Materials for Flexible, Transparent Electronic Circuitry?”

Prof. Tobin Marks

Northwestern University, Depts. of Chemistry and Materials Science & Engineering
Priestley and Willard Gibbs Medalist

ABSTRACT: This lecture focuses on the challenging design, realization, and implementation of new materials families for creating unconventional electronic circuitry. Fabrication methodologies to achieve these goals include high-throughput, large-area, high-resolution printing techniques. Materials design topics will include:

1. Rationally designed high-mobility p- and n-type organic semiconductors for printed organic CMOS,
2. Self-assembled and printable high-k nanodielectrics enabling ultra-large capacitance, low leakage, high breakdown fields, minimal trapped interfacial charge, and device radiation hardness,
3. Polycrystalline and amorphous oxide semiconductors for printable transparent and mechanically flexible electronics,
4. Combining these materials sets to fabricate a variety of high-performance thin-film transistor-based circuitries,
5. The relevance of these advances to unconventional photovoltaic.



PROGRAM

- 5:30 - 6:30 P.M. Registration, Poster Session & Networking
6:30 - 7:40 P.M. Dinner and Introductory Remarks
7:40 - 8:40 P.M. Lecture by Prof. Tobin Marks

THREE LOCATIONS:

MAIN SITE (live lecturer): Loyola University	Chemistry Department/Flanner Hall, Rm 133 1068 W. Sheridan Rd.; Chicago, IL 60660	Dinner at deNobili Cafeteria
REMOTE #1: North Central College	Science Center, Rm STEM 101 131 S. Loomis St.; Naperville, IL 60540	Panera box lunch (turkey or vegetarian)
REMOTE #2: College of Lake County	Southlake Campus, Rm V336-340 1120 S. Milwaukee Ave.; Vernon Hills, 60061	Panera box lunch (turkey or vegetarian)

DETAILS & REGISTRATION: <http://chicagoacs.org>
<http://chicagoacs.org/meetinginfo.php?id=118>

COST: Dinner is \$15 for ACS members, \$17 for nonmembers. Lecture-only registration is free.

DEADLINES: Dinner registration required by 12:00 noon, Tuesday April 18. Lecture-only registration is due noon April 20.

QUESTIONS? Contact the Chicago ACS office: 847-391-9091, chicagoacs@ameritech.net