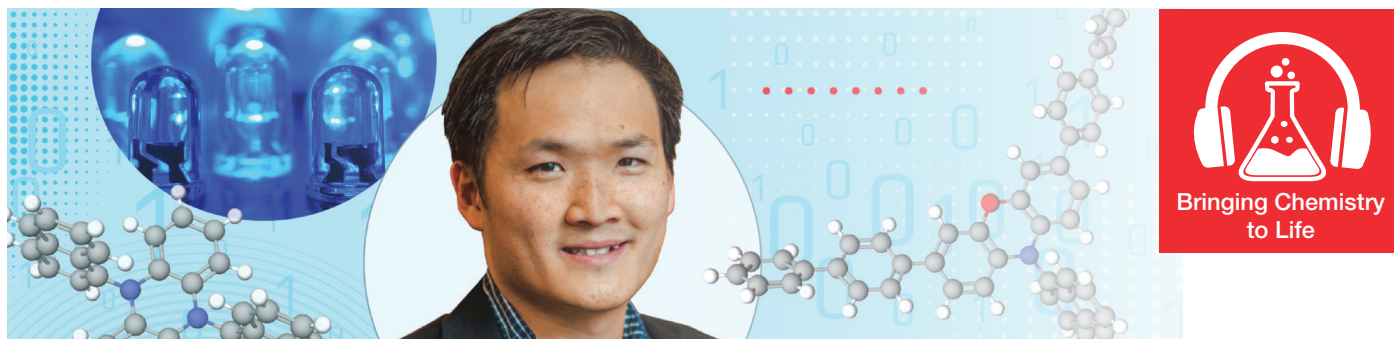


# Bringing Chemistry to Life podcast series

ThermoFisher  
SCIENTIFIC

Season 3: The 2021 C&EN's Talented 12  
Episode 7: Shining a new light on chemistry



## Episode abstract

Entrepreneurship in the blood, a fine mind, and a bold spirit makes for a life of successes and a great podcast episode as well! This is how we would describe Chern-Hooi Lim, a Malaysian chemical engineer who is thinking big and aiming to reshape the way we make molecules through the use of light. Chern-Hooi is an expert and innovator of photocatalysis. His organo-catalysts are a big departure from the more established precious metal-based ones and bring with them the promise of a new deal for synthetic chemistry.

This is a fascinating discussion about the present and future of chemistry. We discover how photocatalysis enables a new paradigm in chemistry, where we depart from fully reduced carbon sources and imitate nature in using oxidized carbon and light as the fundamental building blocks. We explore mild-condition Birch reduction, cross-coupling, and radical reactions.

This is also a story of smart ideas and bold choices and a new perspective on the role entrepreneurship can play in science and technology. Another great discovery of a strong personality and the science that comes from it.

## About our guest

### Chern-Hooi Lim, PhD

Founder and CEO at New Iridium, Inc.

Chern's company site: <https://newiridium.com/>

C&EN Talented 12 profile of Chern: <https://cen.acs.org/synthesis/catalysis/Chern-Hooi-Lim/99/i30>

## Chern's Recent Publications:

- [Organocatalyzed Birch Reduction Driven by Visible Light](#)
- [Dimethyl Dihydroacridines as Photocatalysts in Organocatalyzed Atom Transfer Radical Polymerization of Acrylate Monomers](#)
- [C–N Cross-Coupling via Photoexcitation of Nickel–Amine Complexes](#)
- [Organocatalyzed Atom Transfer Radical Polymerization Using N-Aryl Phenoxazines as Photoredox Catalysts](#)
- [Visible-Light-Driven Conversion of CO<sub>2</sub> to CH<sub>4</sub> with an Organic Sensitizer and an Iron Porphyrin Catalyst](#)

## Chern's Content Recommendations:

- [Disciplined Entrepreneurship: 24 Steps to a Successful Startup & The Four Steps to the Epiphany](#) (Books that inspired Chern's entrepreneurial career)
- [Business Chemistry: How to Build and Sustain Thriving Businesses in the Chemical Industry & Industrial Organic Chemistry](#) (Books that provided vision on sustainable chemical processes)

This podcast series is available via the following links



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