Scientific Achievement
Developed a method by which imine-linked Covalent Organic Frameworks (COFs) could be converted to isostructural amide-linked frameworks post-crystallization.

Significance and Impact
Demonstrates that COFs can serve as starting materials for organic transformations, resulting in materials inaccessible by other routes.

Research Details
– Oxidation of imine linkages was achieved using conditions related to the Pinnick oxidation.
– Complete conversion was confirmed by infrared and $^{13}$C nuclear magnetic resonance spectroscopy.
– Resulting amide-linked materials demonstrate increased chemical stability in aqueous acid and base (12 M HCl / 1 M NaOH).


Work was performed at University of California, Berkeley.