

Differentiation Between Families of Endohedral
Fullerenes

Evan Sarina,¹ Brandon Q. Mercado,² Marilyn M.
Olmstead,¹ and Alan L. Balch¹

(1) University of California, Davis,
(2) University of California, Irvine

The electric arc synthesis of fullerenes utilizing carbon rods doped with an appropriate metal oxide produces a broad array of empty cage fullerenes and endohedral fullerenes. Generally separation of these involves extensive chromatography. Recently, various chemical means of separating empty cage fullerenes from the less reactive endohedral fullerenes have been developed. Here, we will describe a simple extractive procedure that allows the investigator to identify various classes of endohedral fullerenes based on differences in their chemical reactivity.