Budget: **A new research and teaching collaboration with the University of Duisburg-Essen**

Round trip Flight to Heathrow, UK April 21-May 7 $800

Train LHR to Sheffield, UK April 22 $100

Train Sheffield, UK to Duisburg Germany April 26 $300

Train Duisburg Germany to London. May 6 $350

Rental Car expenses to pigment companies in Ruhrgebeit $350

Airbnb Sheffield/Duisburg/possibly London ~ $100/night $1,400

Food/expenses ~$86/day $1,200

 Total $4,500

**Budget justification:** The budget includes travel expenses for two weeks. This includes 2 working days in Sheffield UK to firm up the source of silicon materials and access to battery fabrication facilities for the collaboration with UDE. If another faculty member accompanied Beaucage the expenses would increase airfare, train, housing, and food/expenses by about $4,000.

Flight expenses are estimated from Kayak, train expenses are from Raileurope.com, rental car expenses from Kayak, Airbnb are rounded from available housing on the Airbnb webpage. Food expenses are from the US Department of State which estimates expenses in Dusseldorf at $115 per day and somewhat higher in Manchester $118 and London $132 ($86 is requested).