Fig. E-1
Image of modular porous tantalum shell (Courtesy of Zimmer, Warsaw, Indiana).
**Fig. E-2A** Image of cup-cage construct (Courtesy of Zimmer, Warsaw, Indiana).

**Fig. E-2B** Anteroposterior radiograph (left) of the right hip of an eighty-two-year-old woman, eighteen years after total hip replacement. The patient sustained a posterior column and posterior wall acetabular fracture after a fall. She has a grossly loose acetabular component and massive acetabular osteolysis. Computed tomographic cuts (right) demonstrate the posterior column acetabular fracture and loss of acetabular support.

**Fig. E-2C** Anteroposterior radiograph one year postoperatively, showing reconstruction with a porous tantalum revision cup and superimposed reconstruction cage (cup-cage construct), superior augment, and posterior column plating. The femoral stem demonstrated aseptic loosening and was revised to a long, distally based modular stem with use of an extended trochanteric osteotomy.