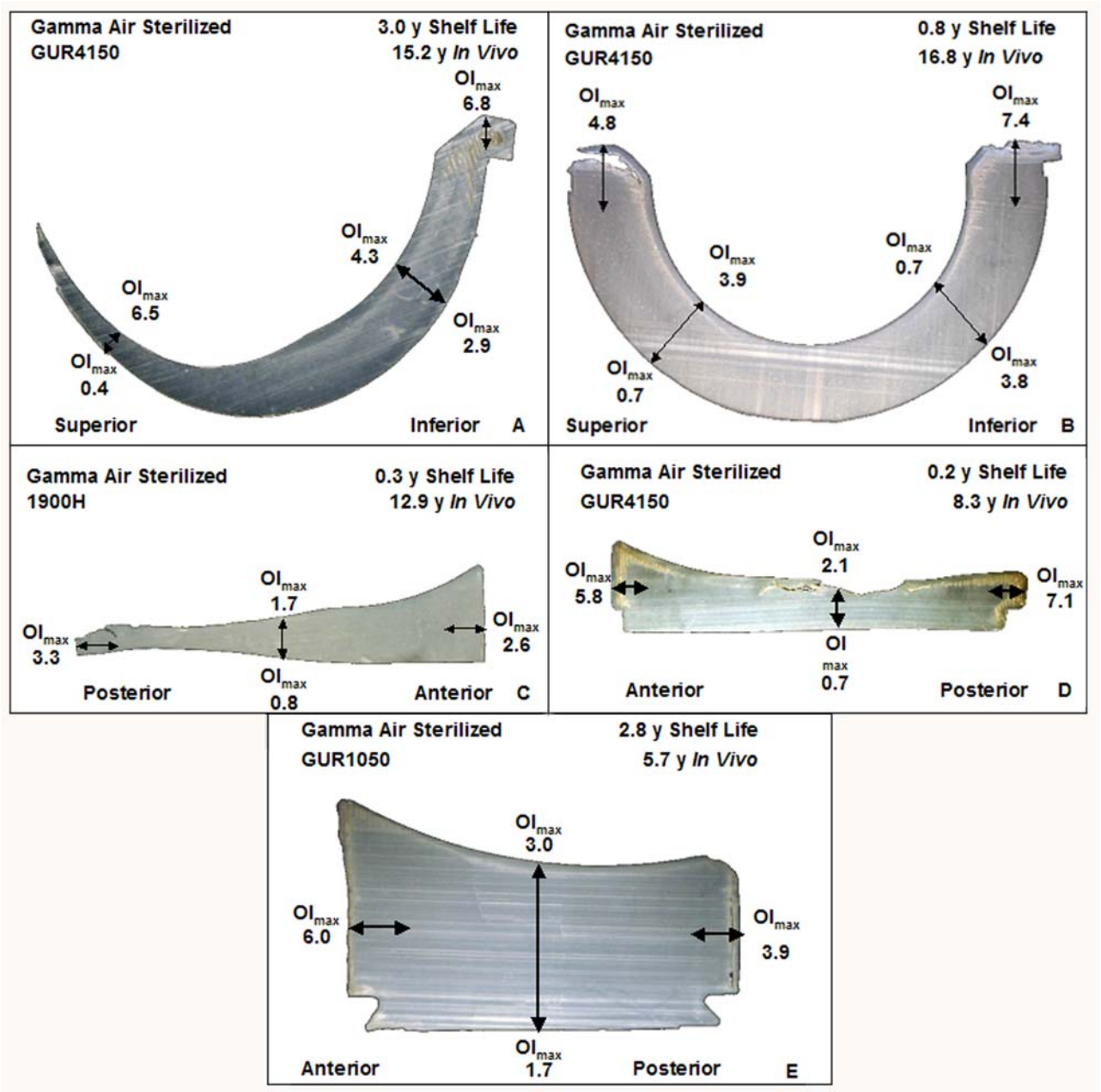

Fig. E-1
Darkfield optical micrographs of microtomed sections corresponding to historical (gamma-air-sterilized) extruded GUR 4150 polyethylene acetabular liners (A and B) as well as historical direct-compression-molded 1900H tibial inserts (C), extruded GUR 4150 tibial inserts (D), and molded GUR 1050 tibial inserts (E). The maximum ASTM (formerly American Society for Testing and Materials) oxidation index (OI) is also indicated. Subsurface white bands (areas of high oxidation) were evident in the historical retrievals.

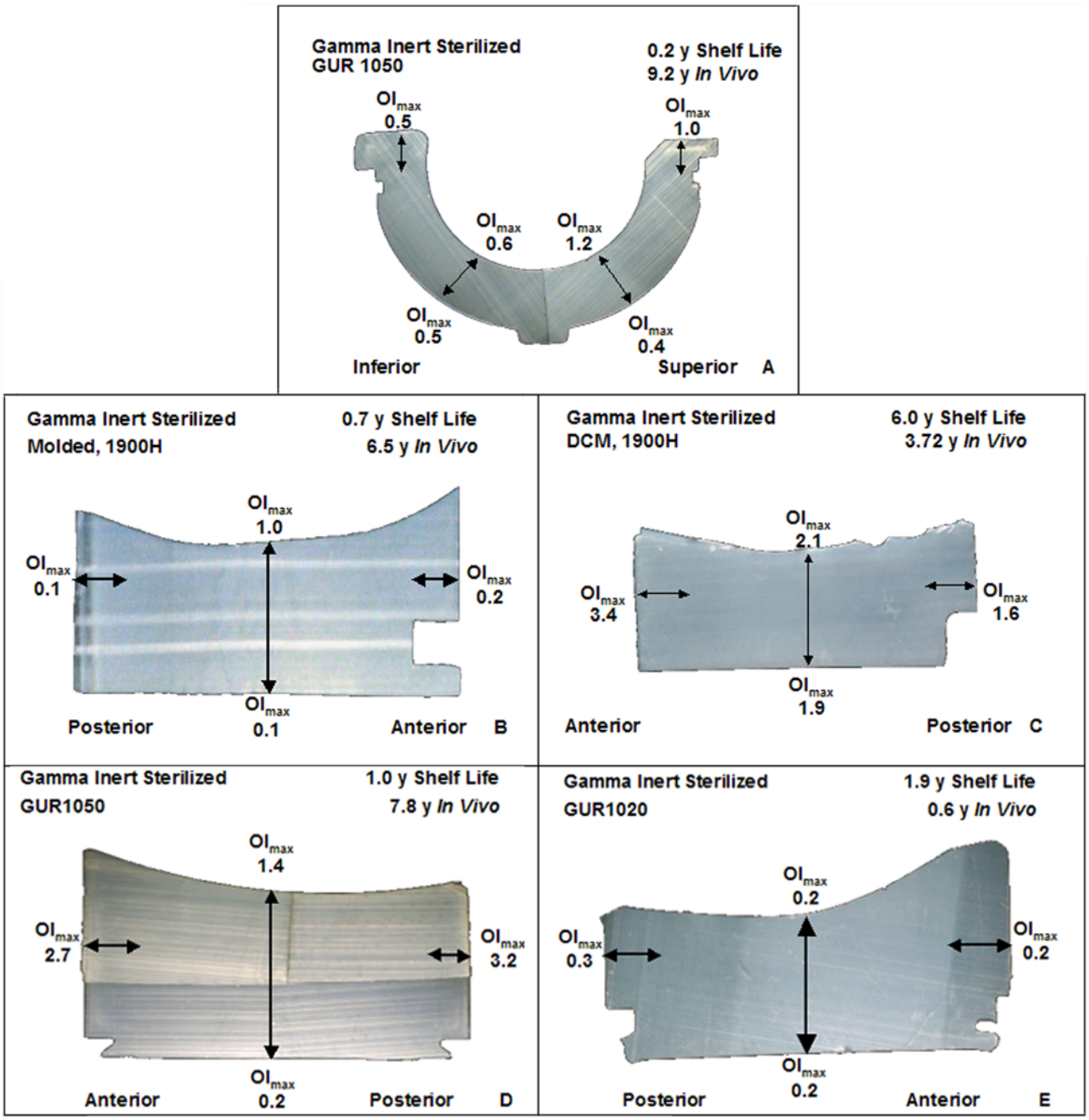

Fig. E-2

Darkfield optical micrographs of microtomed sections corresponding to conventional acetabular liners (A) as well as molded 1900H tibial inserts (B), direct compression molded 1900H tibial inserts (C), molded GUR 1050 tibial inserts (D), and molded GUR 1020 tibial inserts (E). The maximum ASTM (formerly American Society for Testing and Materials) oxidation index (OI) is also indicated. Subsurface white bands were less evident but still present, especially in regions exposed to body fluids.

Fig. E-3
Historical (A and B) and conventional (C) sterilized acetabular liner retrievals showed indistinguishable penetration wear rates. However, some of the historical liners were worn through and exhibited considerable damage.

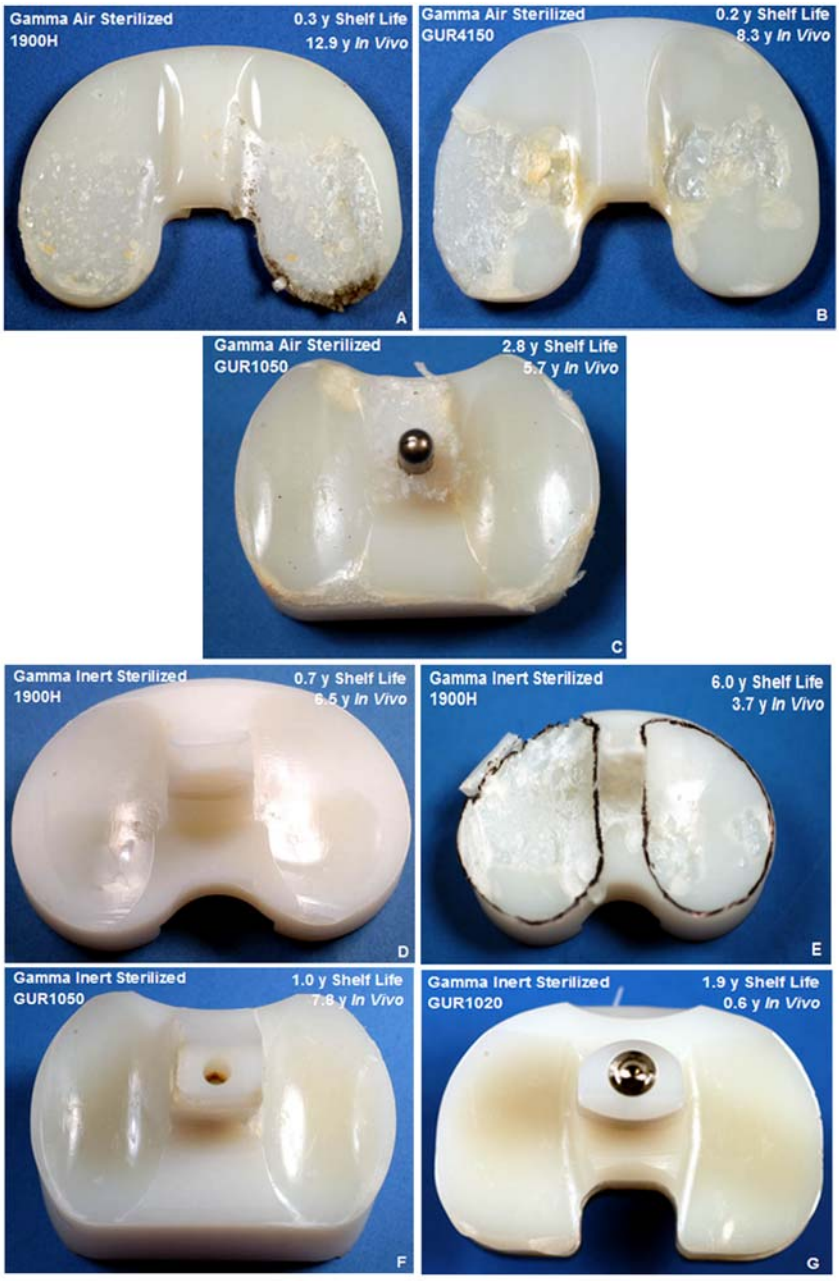

Fig. E-4
Typical photographs of surface damage to the superior surface are shown for historical direct-compression-molded 1900H knee components (A), extruded GUR 4150 knee components (B), and molded GUR 1050 knee components (C) as well as conventional molded 1900H tibial inserts (D), direct compression molded 1900H tibial inserts (E), molded GUR 1050 tibial inserts (F), and molded GUR 1020 tibial inserts (G). Delamination was more prevalent in retrieved historical tibial inserts than in conventional knee retrievals.