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ABSTRACT OF THE DISCLOSURE

An apparatus and method are provided for insulating a seal (110) made of a polymeric material in a pressurized, evacuated or exhausted process chamber (100) that reduces damage due to heat transferred to the seal from the chamber. The
5 chamber (100) includes a wall (125) having an aperture (140) therein, a flange (115) disposed about the aperture, and an insulator (105) between the flange and a fixture (120) to insulate the seal between the flange and the fixture. Generally, the insulator (105) includes a cooling tube or loop (260) having a sidewall (262) overlying and attached to the flange (115), and a cap (255) overlying the loop. The cap (255) has a
10 sealing surface (257) against which the seal (110) seats. Fluid may be passed through the loop (260) to reduce heat transferred to the seal (110). Preferably, the flange (115), the loop (260), and the cap (255), are made of quartz or a glass, and the sidewall (262) of the loop is welded to the flange and the cap. More preferably, the loop (260) functions as a light pipe to direct heat radiating from the chamber (100) away from the
15 seal (110).



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