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(54) **RESONATOR SENSOR ASSEMBLY**

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(57) **ABSTRACT**

An improved method and assembly, wherein the method generally includes the steps of providing a coated or uncoated sensor element having an exposed sensing surface; attaching the sensor element to a platform so that the exposed sensing surface is spaced from the platform; and optionally applying a protective layer over the platform while maintaining the sensing surface as exposed. The assembly includes a resonator having a free portion with a sensing surface is incorporated onto a platform, components of the sensor are physically shielded from harsh operating conditions, the requisite space is maintained between the free portion of the resonator and the platform, and the sensing surface of the resonator remains exposed for sensing.

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