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(54) **INTEGRATED CIRCUIT FOR DIAGNOSTICS**

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(57) **ABSTRACT**

A fuel cell system includes a membrane electrode assembly, a first plate separator and a second plate separator on opposite sides of the membrane electrode assembly. The first plate separator and the second plate separator have exterior ends laterally spaced from the membrane electrode assembly. A first gas diffusion layer is located between the first plate separator and the membrane electrode assembly. A second gas diffusion layer is located between the second plate separator and the membrane electrode assembly. The sub-gasket extends laterally from the membrane electrode assembly. A first seal is located between the first plate separator and the sub-gasket. A conductive trace is attached to the sub-gasket and extends laterally on the sub-gasket away from the first seal and upwardly away from the subgasket to contact the first plate separator.