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For Immediate Release

Company	Nisshinbo Holdings Inc.
Securities code	3105

Notice of development of new application for carbon alloy catalyst,
a replacement for platinum catalysts

Following the announcement of commercial application of carbon alloy catalyst utilized in electrodes for polymer electrolyte fuel cells (PEFCs) in September 13, 2017 Nisshinbo Holdings Inc. (Nisshinbo) hereby announces it has started evaluating the application of its carbon alloy catalyst, a replacement for platinum catalysts, in PEFCs for transport equipment such as forklifts.

Nisshinbo has successfully commercialized its carbon alloy catalyst, which does not contain any platinum, as an electrode catalyst for a PEFC stack, marking the first such commercial application in the world. The PEFC stack is a portable 30W model manufactured by Ballard Power Systems Inc. (Ballard), and it is used as a power source for lightweight applications such as portable devices.

Following the commercial application of its carbon alloy catalyst in a portable PEFC stack, Nisshinbo will now team up with Ballard to start development of applications for transport equipment in earnest. It has entered a new development stage geared toward the deployment of its carbon alloy catalyst in high-output PEFC stacks.

PEFCs are the ultimate eco-friendly power generation system, generating power from hydrogen and oxygen without CO₂ emissions. The development of materials that can replace platinum as a catalyst is regarded as indispensable to promote further adoption of PEFCs. Nisshinbo's carbon alloy catalyst represents a breakthrough that will help significantly reduce consumption of platinum, an expensive and finite resource.

Fitting PEFCs for industrial and construction machinery, which require substantial amounts of energy, with carbon alloy catalysts would contribute significantly to wider PEFC adoption.

By expanding applications for its carbon alloy catalyst, Nisshinbo continues to strengthen initiatives geared toward the realization of a hydrogen-powered society.

As the earnings impact of the new development effort is expected to be minimal, Nisshinbo makes no changes to its full-year FY03/18 consolidated earnings forecasts announced on May 11, 2017.