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**Compact RF Ion Source for Industrial Electrostatic Ion Accelerator**

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KOMAC (Korea Multi-purpose Accelerator Complex) is developing a single-ended electrostatic ion accelerator to irradiate gaseous ions, such as hydrogen, nitrogen, etc., on materials for industrial applications. The maximum accelerating voltage is 1 MV, and the maximum beam current is 10 mA. For the high-voltage power supply that should be robust and capable for high-current operation, ELV (electron accelerator from Budker Institute of Nuclear Physics, Novosibirsk, Russia) type has been selected. An ion source is installed in the high-voltage terminal in high-pressure tank of sulphur hexafluoride insulating gas. Because of the limited space and the limited electrical power (<500 W) in the high-voltage terminal, the ion source should be compact and electrically efficient. The 200-MHz RF ion source has been developed for this purpose. In this conference the result of the development will be presented.

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