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Plastics and Material Innovations for Forthcoming Automobile

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Currently more than 800 million vehicles are used all over the world, we are facing many environmental issues particularly global warming by carbon dioxide. For the measures of these issues, lightening by material substitution is one of the examples and it has been forwarded. Plastics are also introduced for lightening and are superior to metals with regard to shape flexibility and parts reduction by unifying. Automobiles with new power sources such as hybrid vehicles or fuel-cell vehicles are strongly expected to introduce widely in the market. To realize this expectation, innovative development of materials is a key to the evolution of future automotive technologies. Nanotechnology and Biotechnology will be the breakthrough fields that will revolutionize mature industrial technologies.