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The search for neutrinoless double beta decay with EXO-200

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EXO-200 is a neutrinoless double beta decay experiment using a low background time projection chamber filled with ˜150 kg of liquid xenon enriched in ^{136}Xe. The experiment, located at the Waste Isolation Pilot Plant near Carlsbad, New Mexico, recently completed data taking. After hardware upgrades, the last two years of data demonstrated improved energy resolution. Together with new software techniques for better background discrimination and larger statistics, the final analysis promises a half-life sensitivity beyond the current value of 3.7×10^{25} yr at 90% CL. This talk will present the most recent results from the experiment.

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