

## **The fabrication process of anisotropic NdFeB magnet by single stage hot deformation**

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The single stage hot deformation simplifies the traditional hot deformation process with one touch hot pressing for fabricating anisotropic NdFeB magnet . With this method, excellent anisotropic NdFeB magnets with maximum energy product about 35.6MGOe could be obtained. Obviously this method has advantages in efficiency, cost, manufacture period, and so on. In this study, Taguchi method was applied to the processing of the fabricating anisotropic NdFeB magnets by single stage hot deformation with the standard L16 array, which consisted of sixteen runs in total and allowed up to five factors to be varied at four levels. The contributions to magnetic properties of each factor were obtained as conclusion by the Taguchi ANOVA (analysis of variance) calculation.