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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

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(12) **United States Patent**
Frolov et al.

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(54) **METHOD FOR PRODUCING N-METHYL-PARA-ANISIDINE**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

The invention relates to chemical engineering processes, and more particularly to liquid-phase catalytic methods for producing, in the presence of hydrogen, alkylated para-anisidine for use as a chemical substance or as a gasoline additive for increasing the octane rating of a gasoline. The technical result of the claimed group of inventions is an increase in the yield of N-methyl-para-anisidine and a decrease in the yield of a dimethyl derivative. A method for producing N-methyl-para-anisidine in a liquid phase includes alkylating para-anisidine with formalin as they are separately, simultaneously fed into a mixer disposed in a reactor, directly upstream of a catalytic reduction zone, thus producing an intermediate azomethine, and subsequently reducing same on a hydrogenation catalyst at a temperature of 20-120° C. in an environment of hydrogen at elevated pressure, and then isolating the target product, N-methyl-para-anisidine.

8 Claims, No Drawings