

**Ren, Xiumin; Tsang, Kaiman****Waring-Goldbach problem for unlike powers. II.** (Chinese. English summary) Zbl 1121.11312  
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Summary: In this paper, we are concerned with Waring-Goldbach problems for unlike powers. It is proved that with at most  $O(N^{\frac{47}{48}+\epsilon})$  exceptions, all even positive integers up to  $N$  are expressible in the form  $p_2^2 + p_3^3 + p_4^4 + p_5^5$ .

**MSC:****11P32** Goldbach-type theorems; other additive questions involving primes**11P05** Waring's problem and variants**11P55** Applications of the Hardy-Littlewood methodCited in **1** Review  
Cited in **6** Documents**Keywords:**

Waring-Goldbach problem; circle method; exceptional set