

Title (en)  
VALVE SEAT RING

Title (de)  
VENTILSITZRING

Title (fr)  
BAGUE DE SIÈGE DE SOUPAPE

Publication  
**EP 3463722 A1 20190410 (DE)**

Application  
**EP 17731073 A 20170524**

Priority  
• DE 102016109539 A 20160524  
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Abstract (en)  
[origin: WO2017202998A1] The invention relates to a highly heat-conductive valve seat ring (1) having a carrier layer (2) and a functional layer (3), the carrier layer (2) has a solidified copper matrix having 0.10 - 20 wt.% of a solidified component, and the functional layer (3) has a solidified copper matrix which also contains 5 - 35 wt.% of more or more hard phases with respect to the copper matrix.

IPC 8 full level  
**B22F 5/10** (2006.01); **B22F 7/02** (2006.01); **B22F 7/06** (2006.01); **C22C 1/05** (2006.01); **C22C 9/00** (2006.01); **F01L 3/02** (2006.01); **F01L 3/04** (2006.01); **F01L 3/08** (2006.01); **F16K 25/00** (2006.01)

CPC (source: EP KR US)  
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Citation (search report)  
See references of WO 2017202998A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 2017202998 A1 20171130**; CN 109195734 A 20190111; CN 109195734 B 20210810; DE 102016109539 A1 20171214; EP 3463722 A1 20190410; JP 2019520475 A 20190718; JP 7071931 B2 20220519; KR 102288185 B1 20210809; KR 20190013753 A 20190211; US 11311936 B2 20220426; US 2019143415 A1 20190516

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**EP 2017062681 W 20170524**; CN 201780031636 A 20170524; DE 102016109539 A 20160524; EP 17731073 A 20170524; JP 2018558729 A 20170524; KR 20187033403 A 20170524; US 201716099615 A 20170524