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Author: T. Gorisse D. Buttard M. Zelsmann

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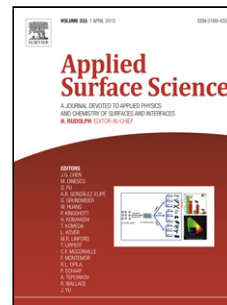
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# Density multiplication of pores and their propagation in a thin layer of nanoporous alumina on silicon substrates

*T. Gorisse*<sup>a,b,c</sup>, *D. Buttard*<sup>a,b,d</sup>, *M. Zelsmann*<sup>a,c,\*</sup>

<sup>a</sup> Univ. Grenoble Alpes, F-38000 Grenoble, France

<sup>b</sup> CEA, INAC-SP2M, F-38000 Grenoble, France

<sup>c</sup> CNRS, LTM, CEA-LETI-MINATEC Campus, F-38000 Grenoble, France

<sup>d</sup> IUT-1, 17 quai C. Bernard, F-38000 Grenoble, France

## KEYWORDS

Porous Anodic Alumina, electrochemistry, period multiplication, surface arrangement, pore propagation.

## ABSTRACT

In this work, perfectly organized triangular arrays of vertical nanopores are formed in an alumina matrix by combining a pre-patterning technique with the natural ability of alumina to form a triangular unit cell. More precisely, we imprinted a triangular array of indents on a thin layer of aluminum deposited on silicon substrates using nano-imprint lithography. During the anodization process, we forced the growth of pores in and in-between the indents obtaining a larger number of pores in the final alumina array than the initial number of indents patterned on the aluminum.

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\* Corresponding author : [marc.zelsmann@cea.fr](mailto:marc.zelsmann@cea.fr), Tel: 00 33 4 38 78 92 92, Fax: 00 33 4 38 78 58 92

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