DESIGN MMI

2 X 4

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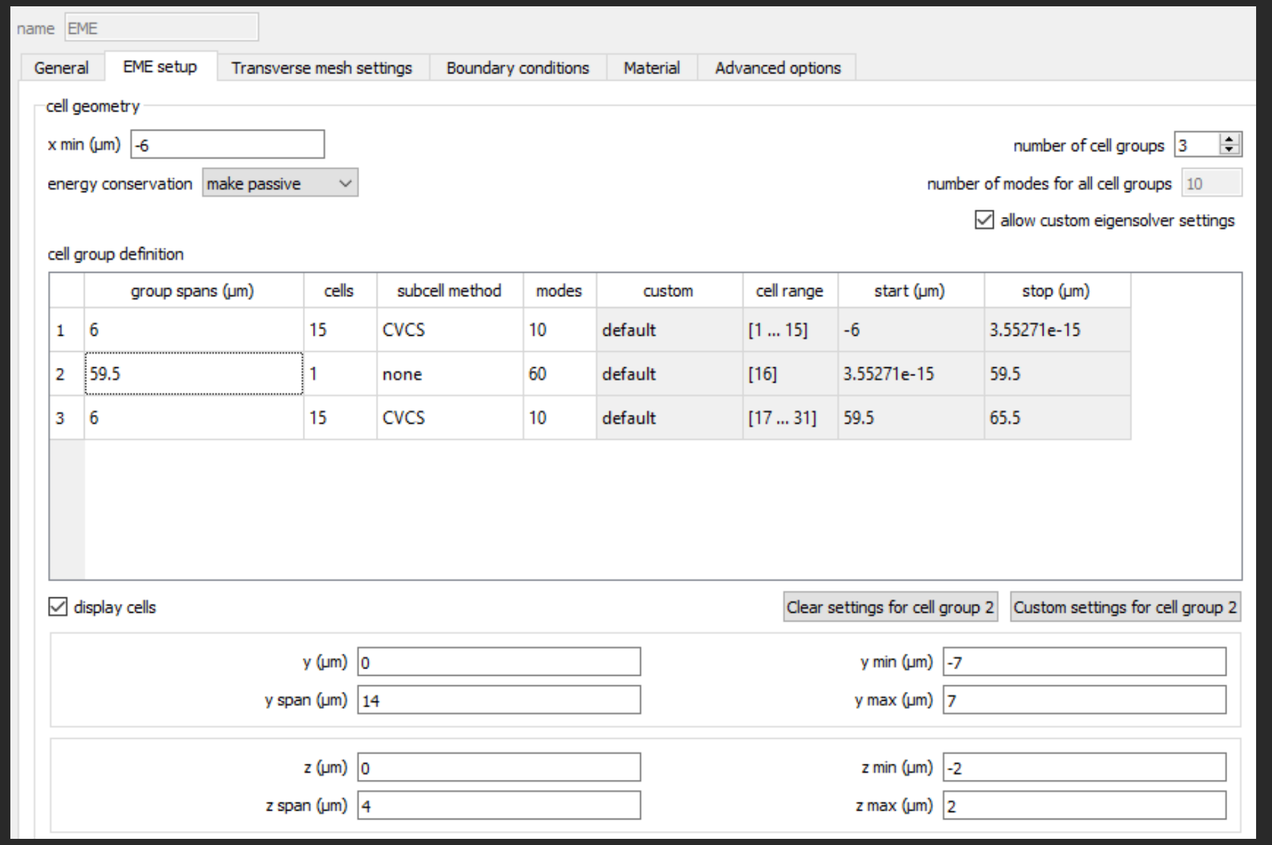
Introdução

Solver utilizado: EME

Dimensões dos guias: 0.45 x 0.22 (um)



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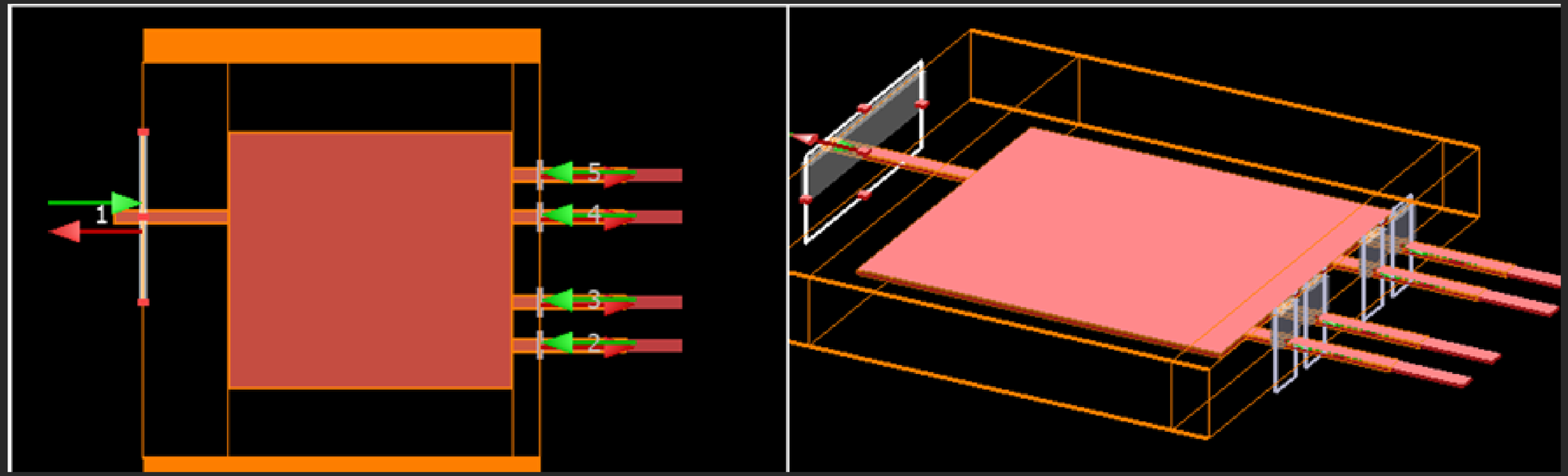
Primeiro Design

MMI sem o uso de tappers



Espessura: 8 um

Comprimento do MMI: 37.3 um

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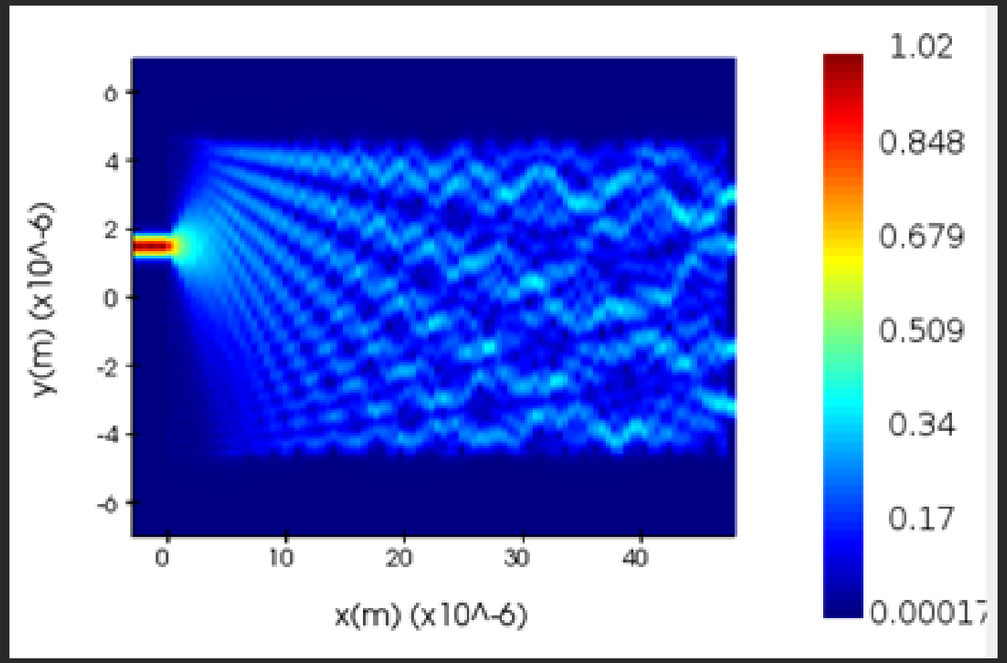
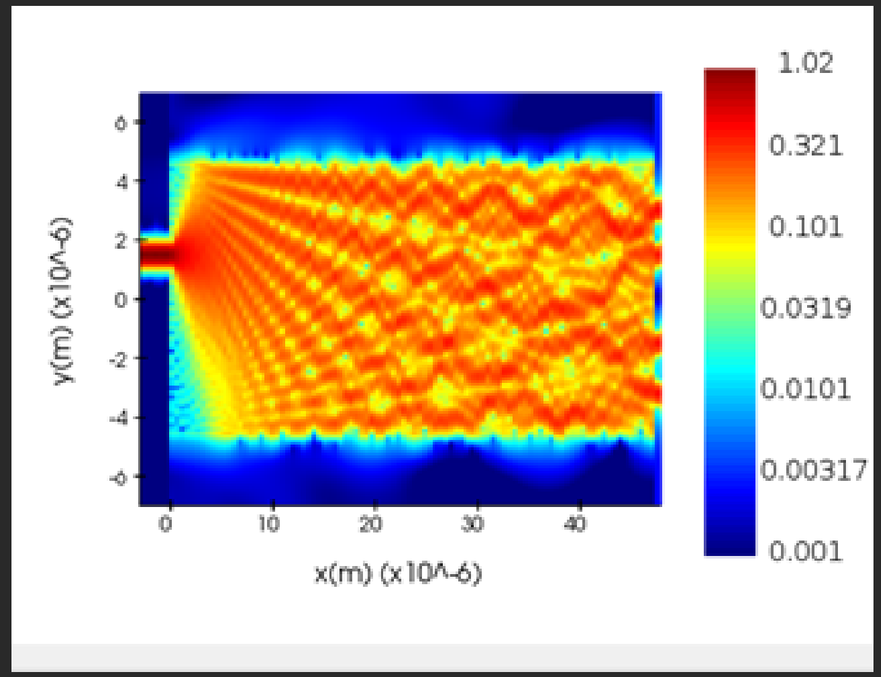
Resultados





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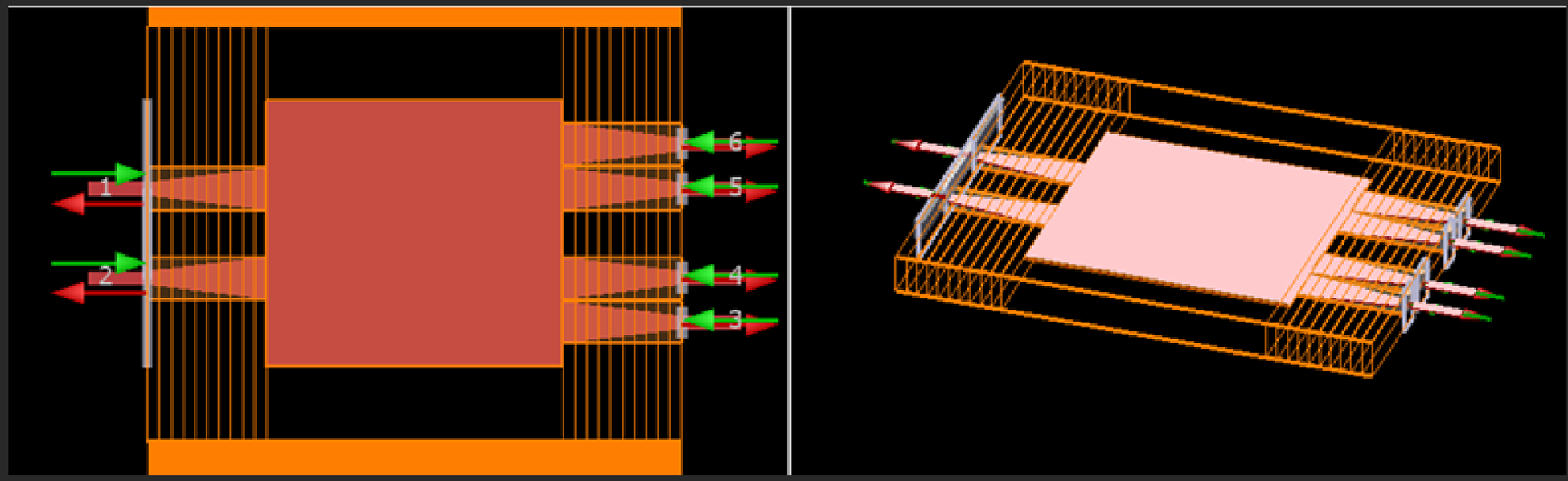
Segundo Design

MMI com tappers



Espessura: 8 um

Comprimento do MMI: 37.3 um

Espessurados Tappers: 1.3 um

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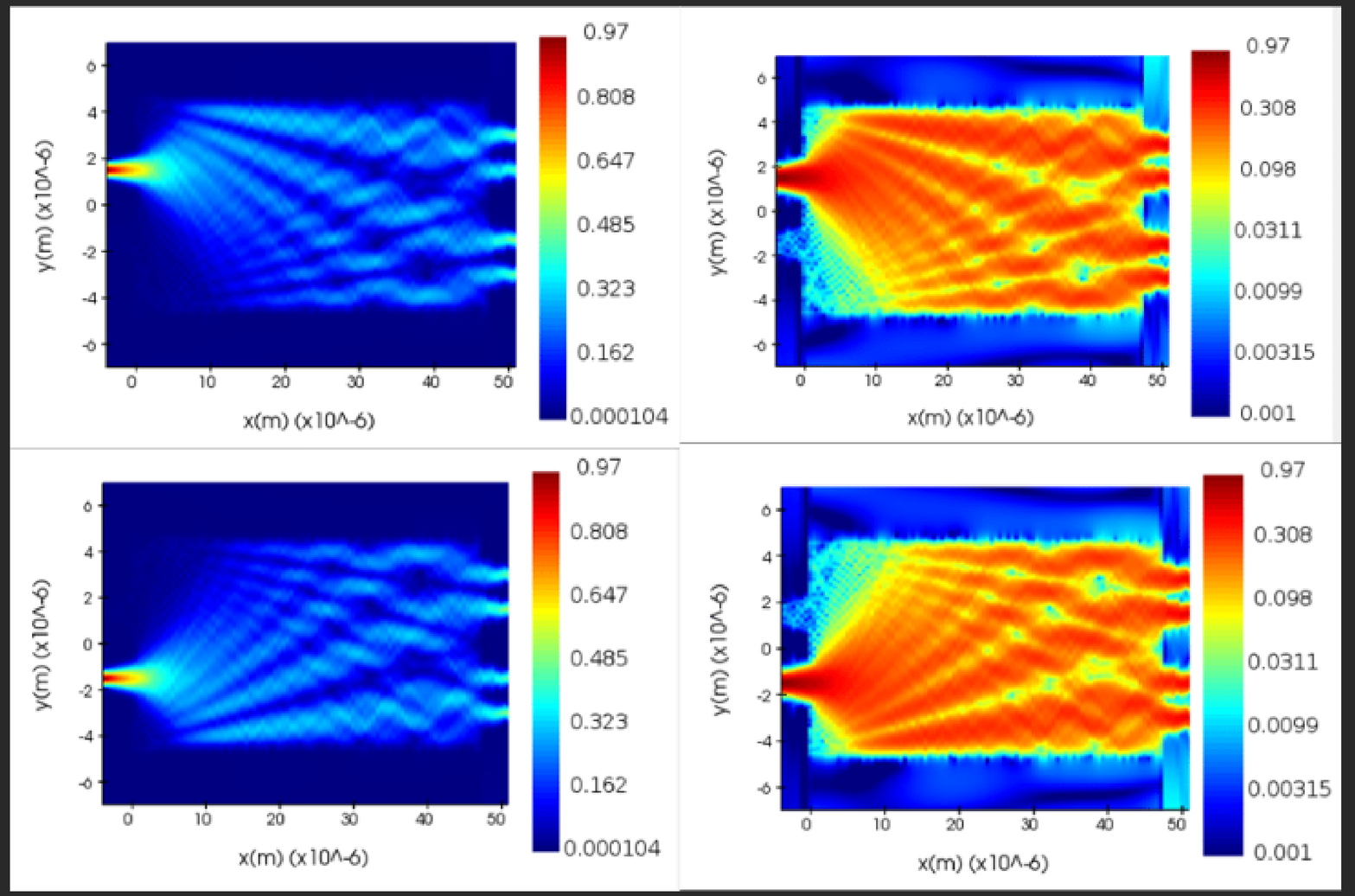
Resultados



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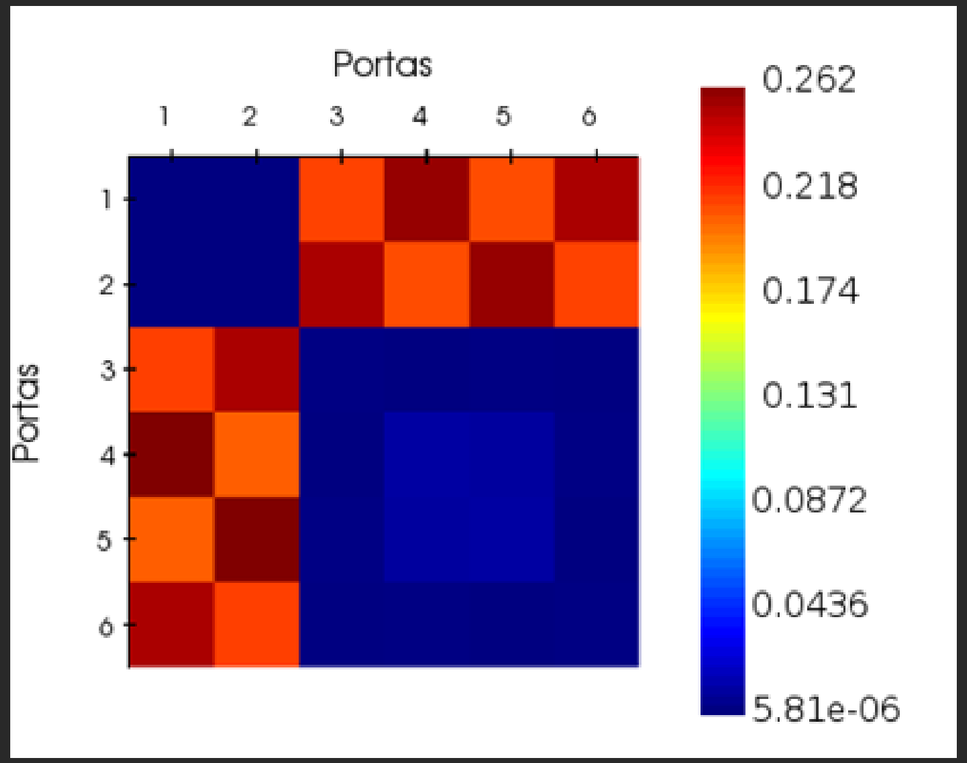
Resultados



	1	2	3	4	5	6
1	2.17241e-05	5.80568e-06	0.212162	0.255831	0.20957	0.250651
2	5.80568e-06	2.17241e-05	0.250651	0.20957	0.255831	0.212162
3	0.212995	0.250784	0.00121246	0.000212234	0.00115945	0.000766812
4	0.26156	0.204975	0.000178732	0.00899923	0.00809438	0.0013391
5	0.204975	0.26156	0.0013391	0.00809438	0.00899923	0.000178733
6	0.250784	0.212996	0.000766812	0.00115945	0.000212234	0.00121246

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Otimizações

Espessura do MMI: 10 um

Espessura dos tappers: 1.5 um

Comprimento teorico do MMI: 57.8 um

	1	2
1	1.47245e-06	4.56628e-08
2	4.56628e-08	1.47245e-06
3	0.218814	0.2612
4	0.260671	0.227093
5	0.227093	0.260671
6	0.2612	0.218814

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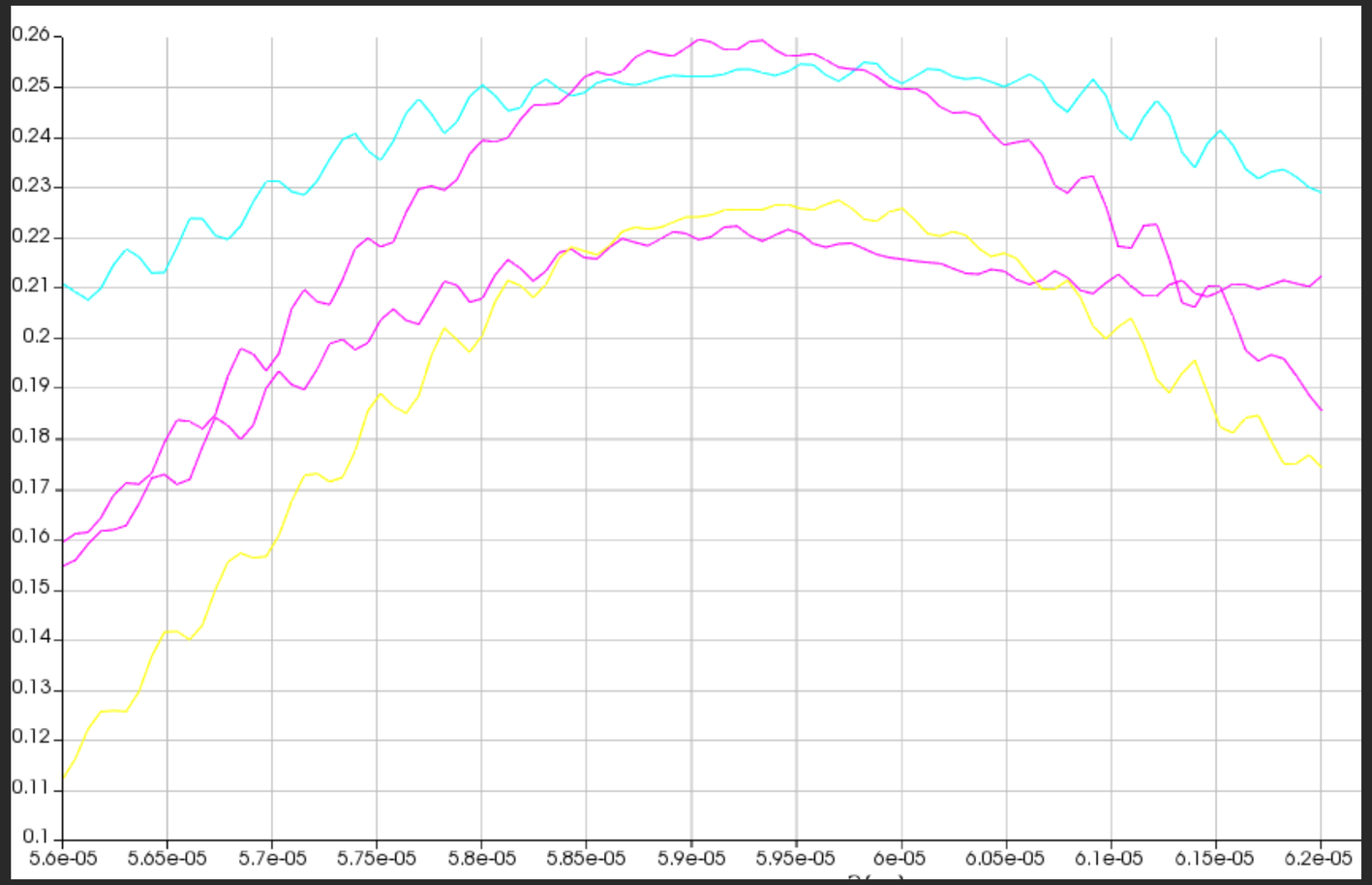
Otimizações

Analise comprimento experimental



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Otimizações

Resultados finais EME

	1	2
1	1.34124e-05	2.37324e-06
2	2.37324e-06	1.34114e-05
3	0.221534	0.256149
4	0.254311	0.225973
5	0.225973	0.254311
6	0.256149	0.221534

Transmissão de 95%

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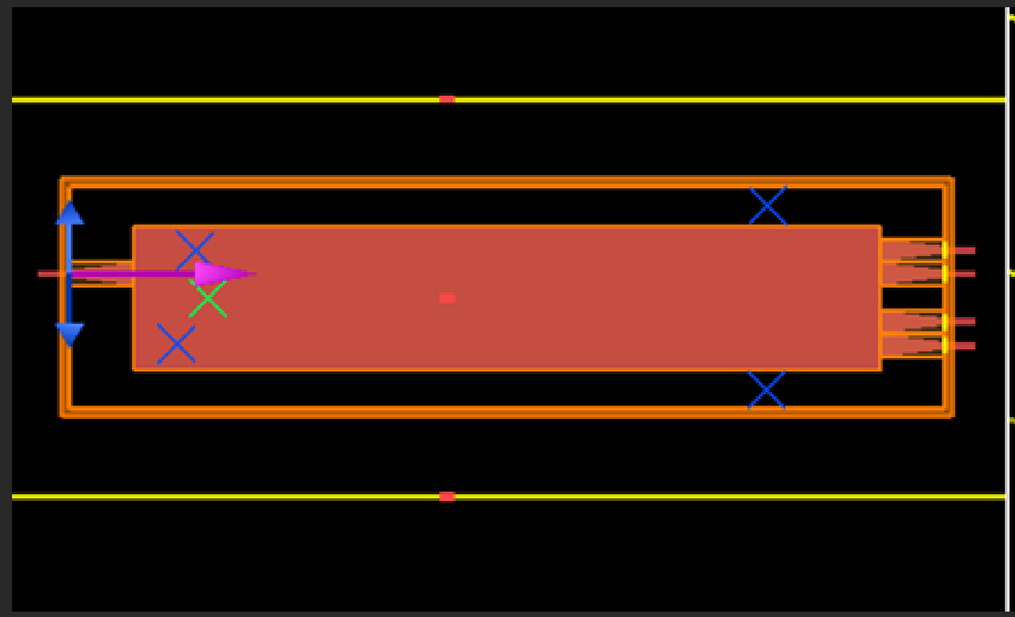
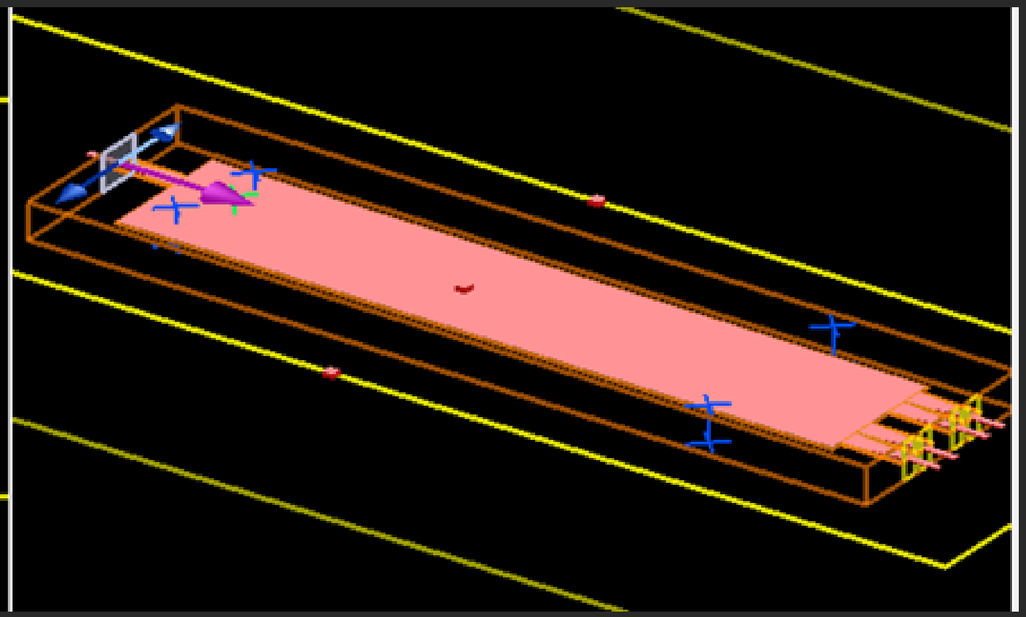
Simulação VarFDTD





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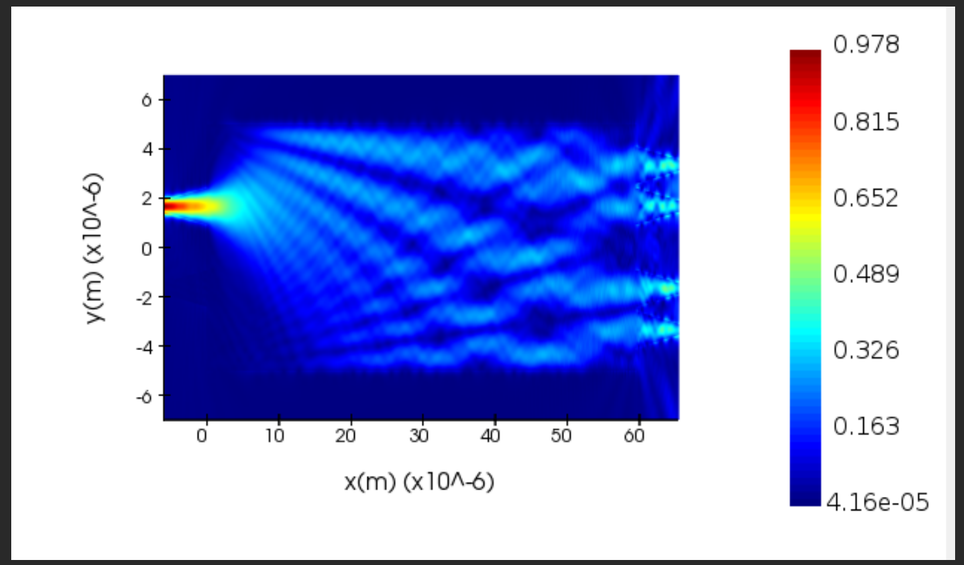
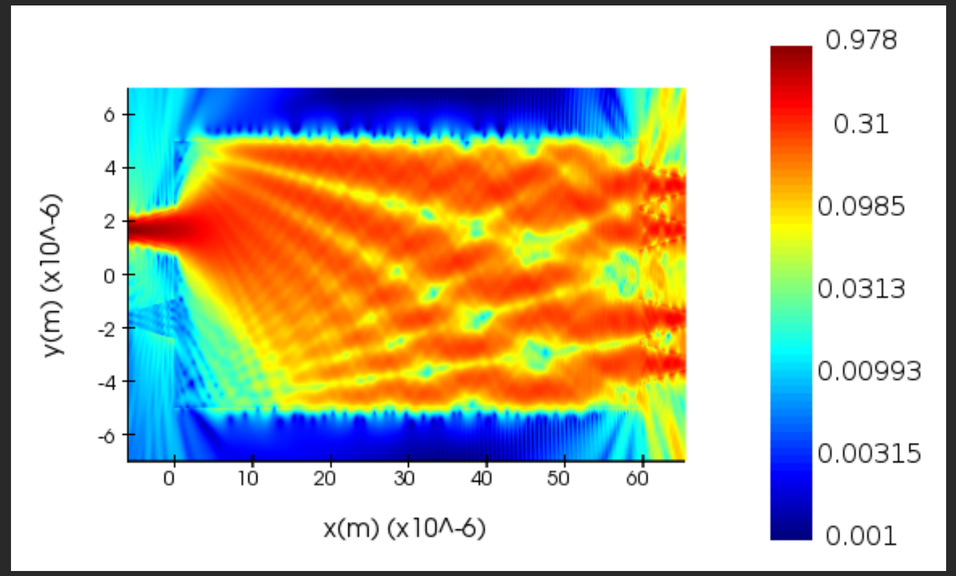
Resultados





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- Planar Monomode Optical Couplers Based on Multimode Interference Effects Lucas B. Soldano, Frank B. Veerman, Meint K.. Smit, Bastiaan H. Verbeek, Alain H. Dubost, and Erik C. M. Pennings

- Overlapping-image multimode interference couplers with a reduced number of self-images for uniform and nonuniform power splitting M. Bachmann, P. A. Besse, and H. Melchior

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