



Possible autocatalytic reduction of resazurin by MXenes with cultured cells



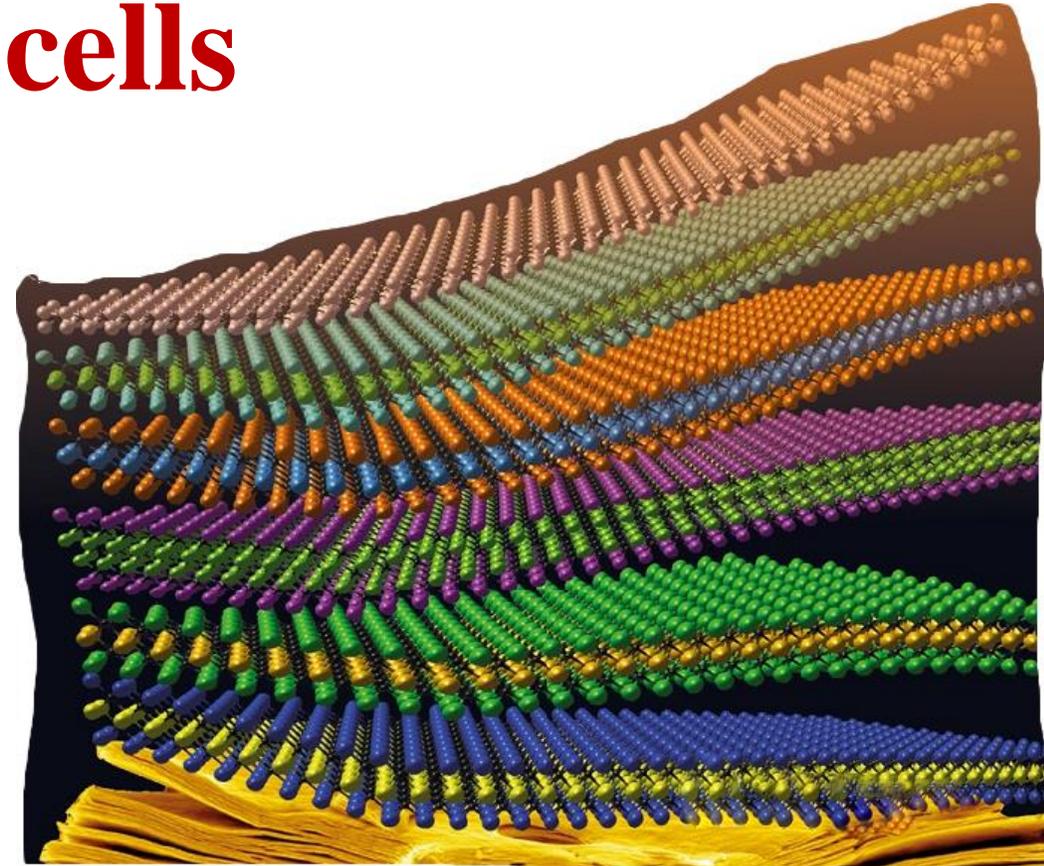
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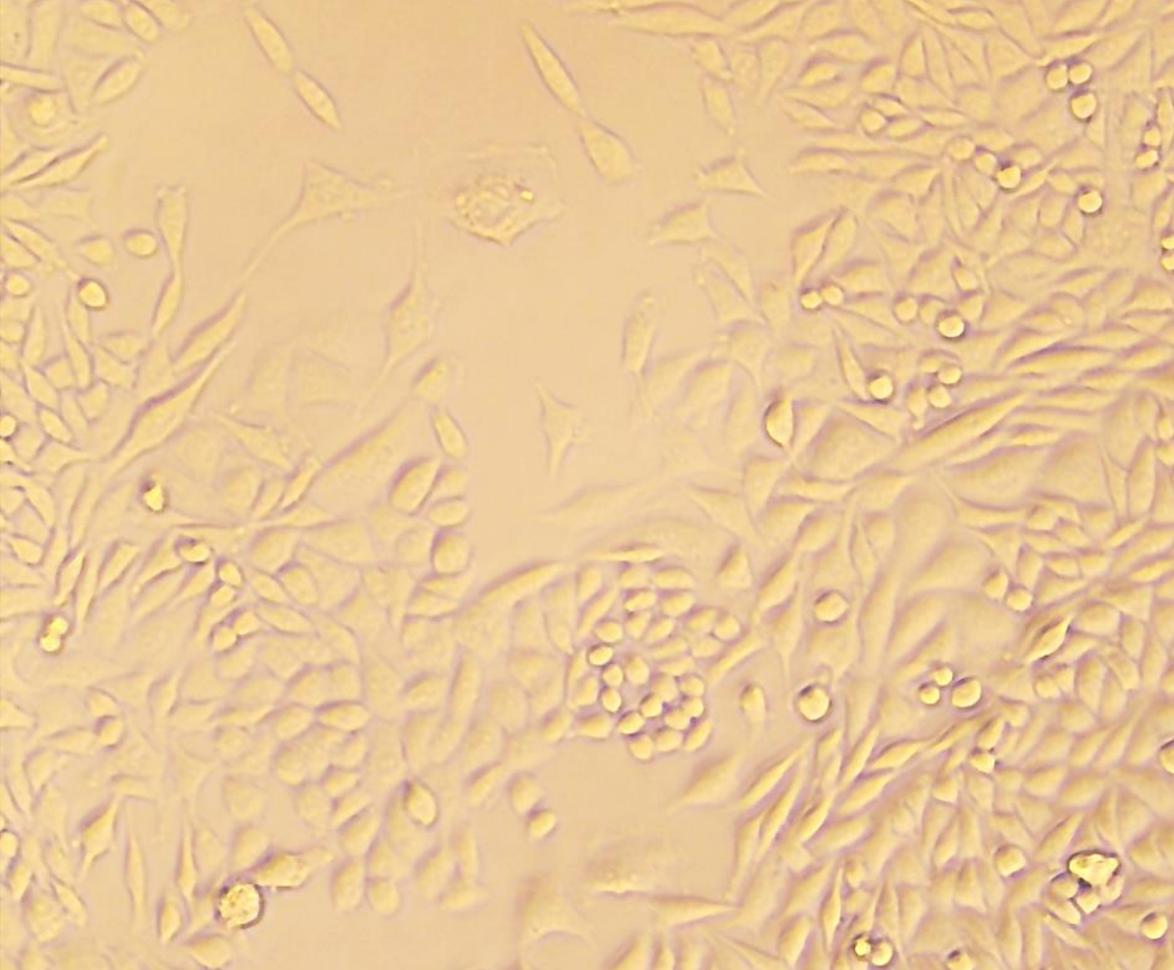
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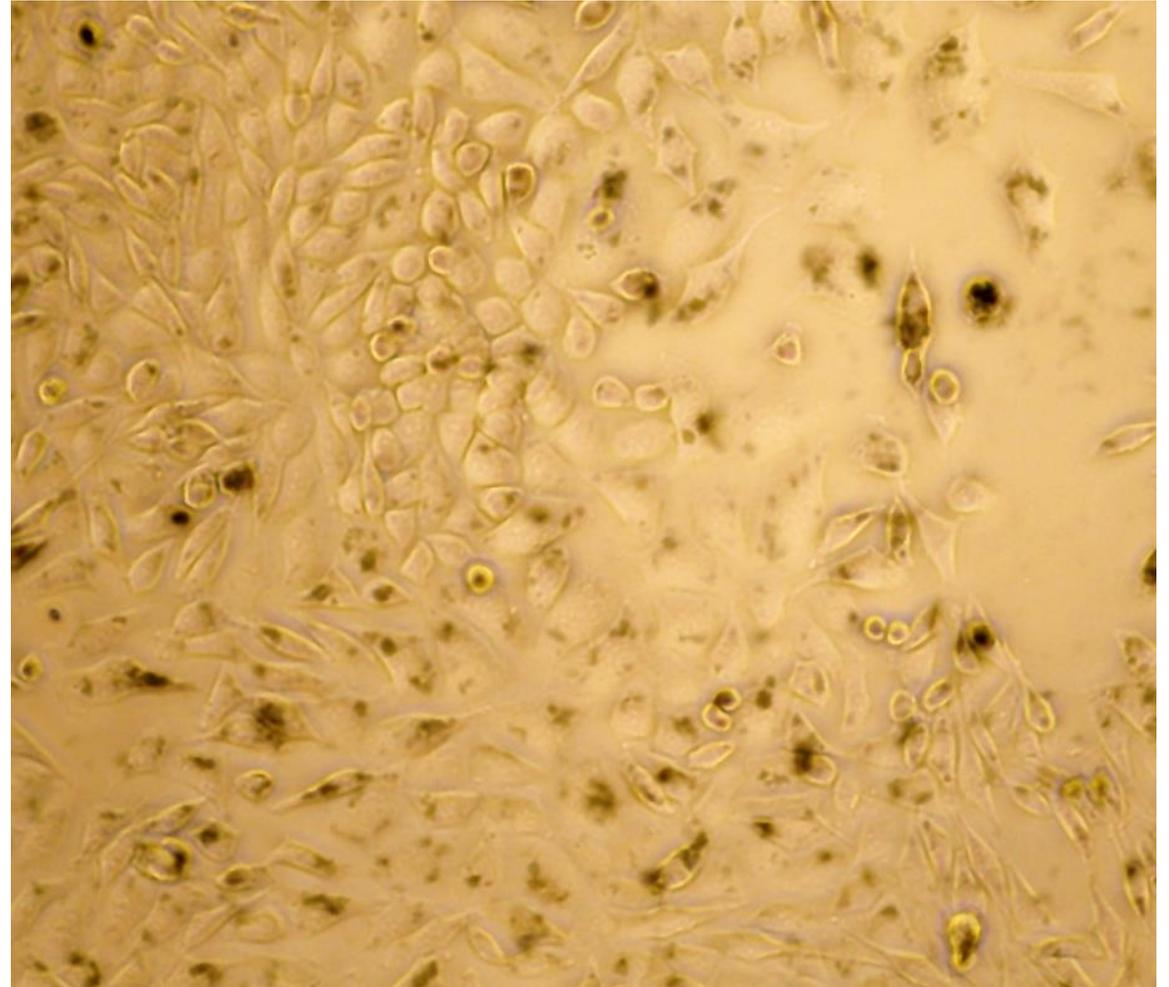
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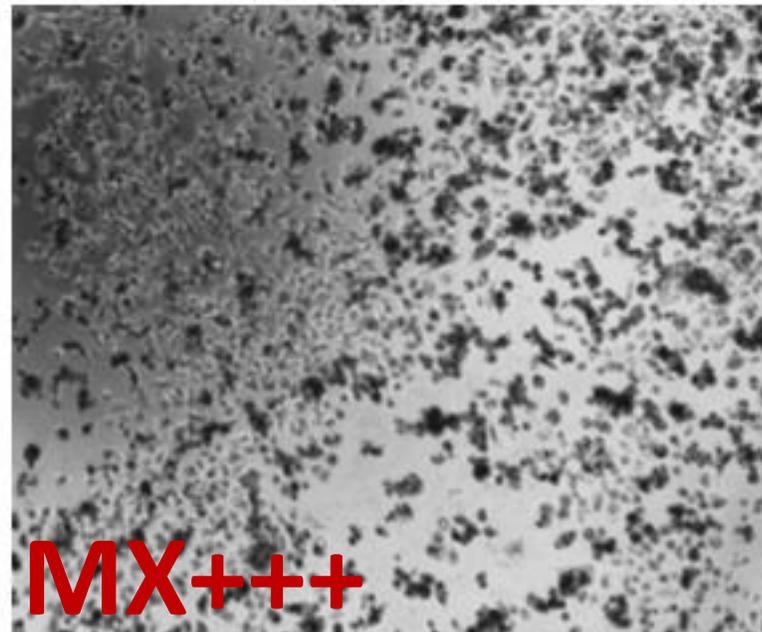
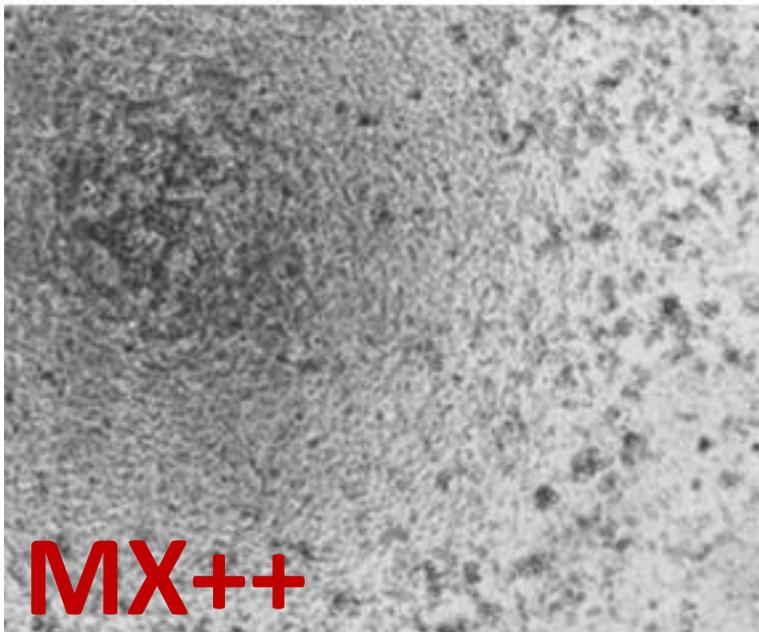
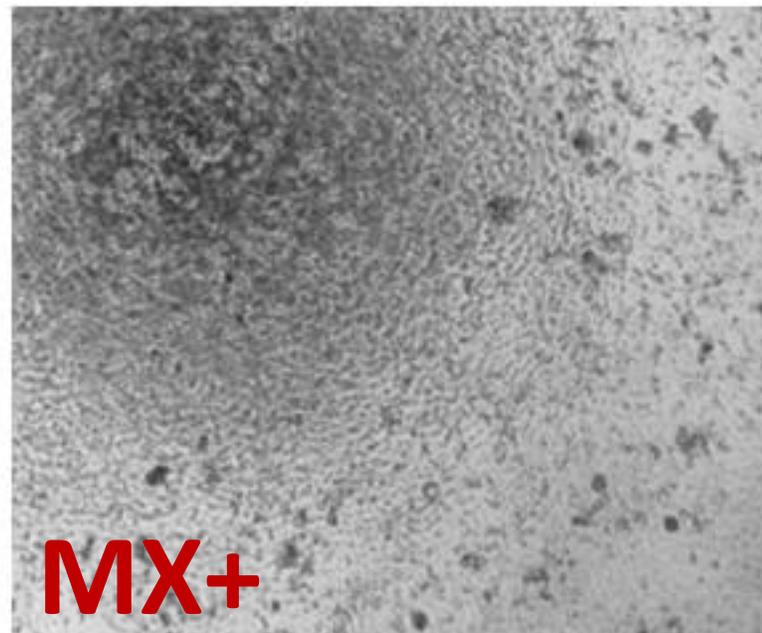
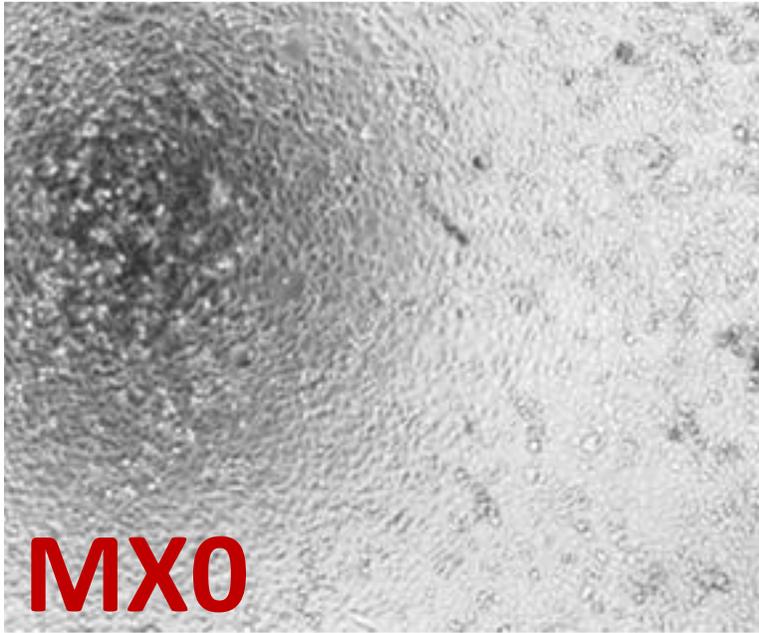


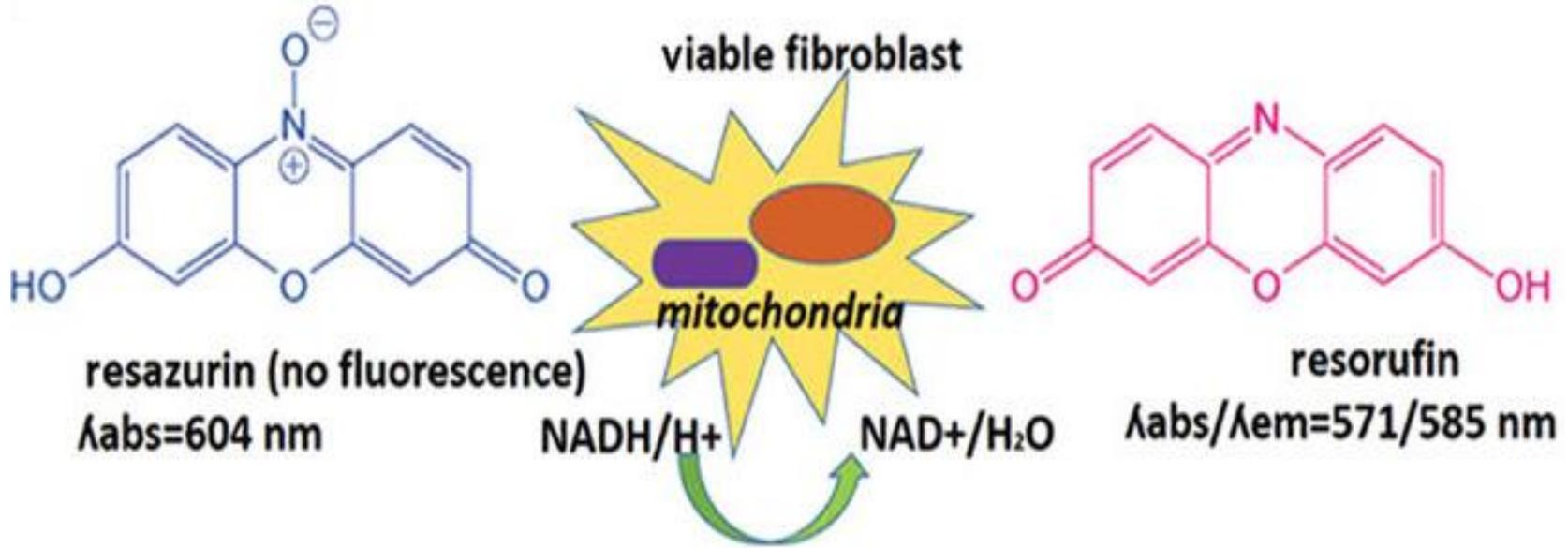
CHO cells

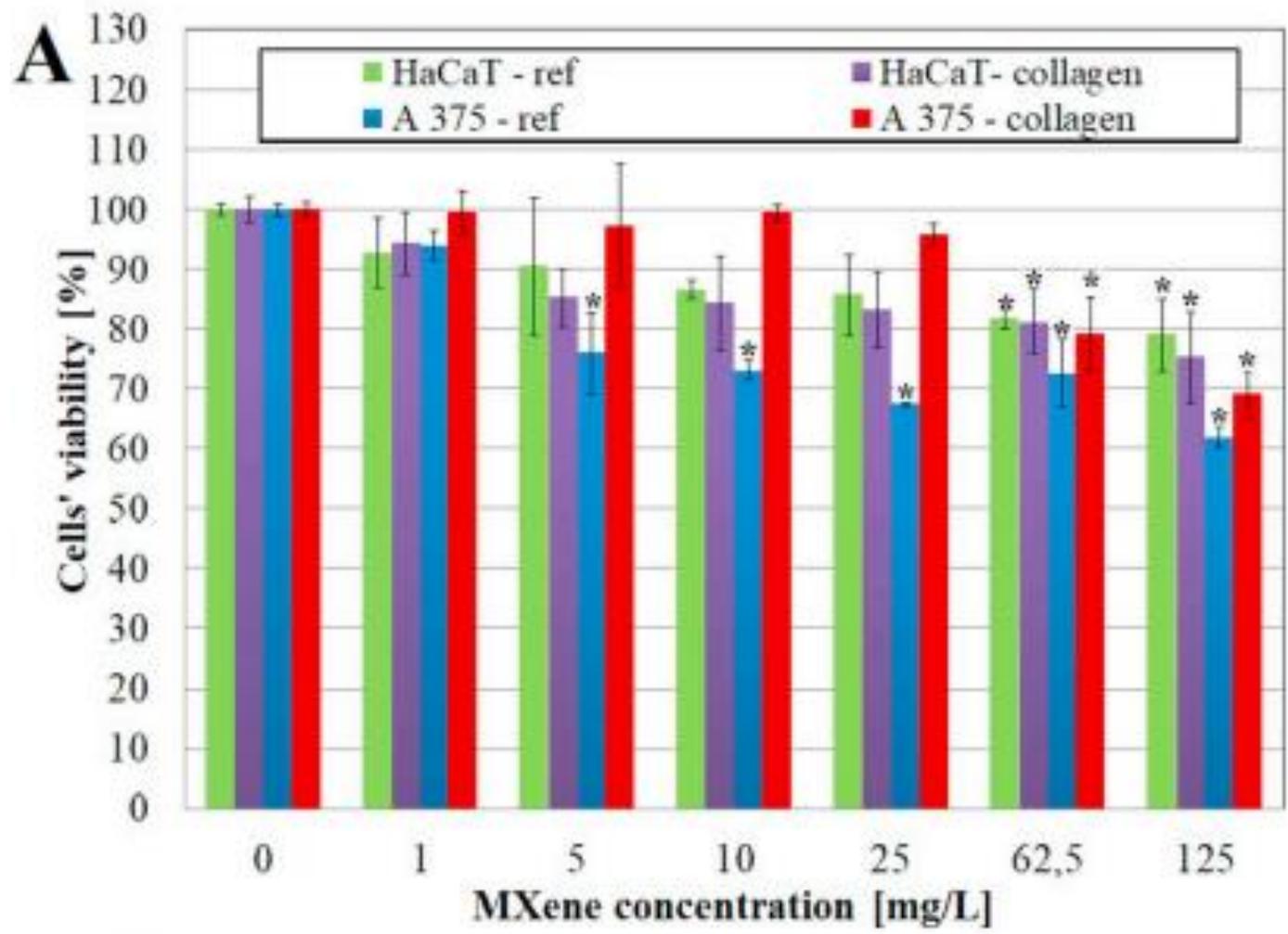


CHO cells + MXenes









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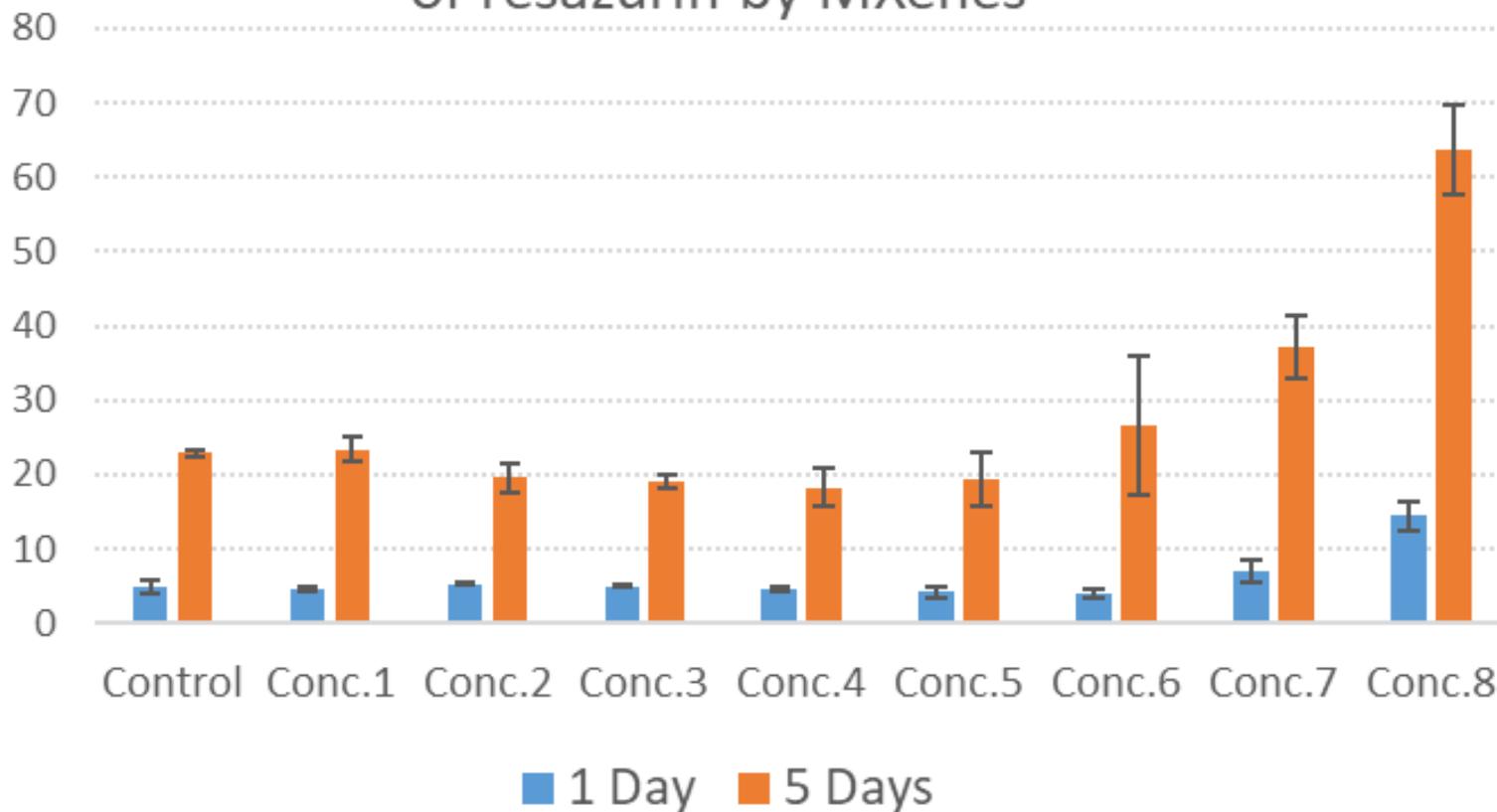
A simple, low-cost and green method for controlling the cytotoxicity of MXenes

A. Rozmysłowska-Wojciechowska^{a,*}, A. Szuplewska^b, T. Wojciechowski^b, S. Poźniak^a, J. Mitrzak^a, M. Chudy^b, W. Ziemkowska^b, L. Chlubny^c, A. Olszyna^a, A.M. Jastrzębska^{a,*}

^a Warsaw University of Technology, Faculty of Materials Science and Engineering, 02-507 Warsaw, Woloska 141, Poland
^b Warsaw University of Technology, Faculty of Chemistry, 00-664 Warsaw, Noakowskiego 3, Poland
^c AGH University of Science and Technology, Faculty of Materials Science and Ceramics, 30-059 Krakow, Mickiewicza 30, Poland

Autocatalytic reduction of resazurin by MXenes

Percentage of resazurin reduction (equation 1)



	ug/ml	ug/ml corr.
Control	0	0
Conc.1	5.9	0.9
Conc.2	11.9	1.8
Conc.3	23.8	3.6
Conc.4	47.5	7.1
Conc.5	95.1	14.3
Conc.6	190.1	28.5
Conc.7	380.3	57.0
Conc.8	760.5	114.1

Take-home message #1:

Results of the metabolic assays with living cells and MXenes should be interpreted with care!

Our hypothesis:

- A compound(s) from the cells after cell death interacts/forms a complex with MXenes, and this complex catalyzes reduction of resazurin

- MXenes can be regarded as a tunable catalytic shell



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