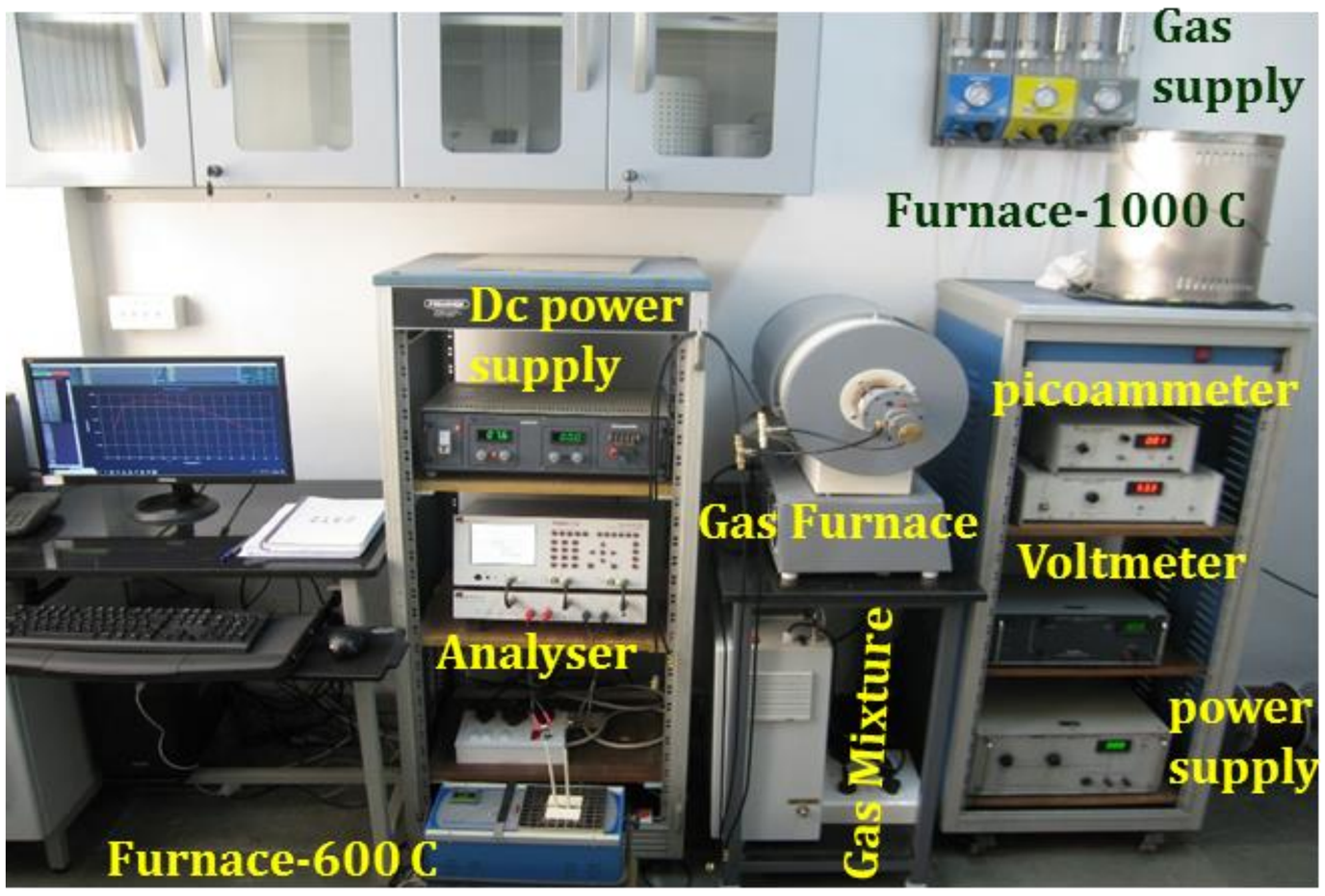
Impedance Spectroscopy



Instrumental details

PSM1735 –NumetriQ
(make: Newtons4th Ltd, UK)

Frequency: 10^{-3} – 35×10^{6} Hz

Temperature: RT-1000 °C

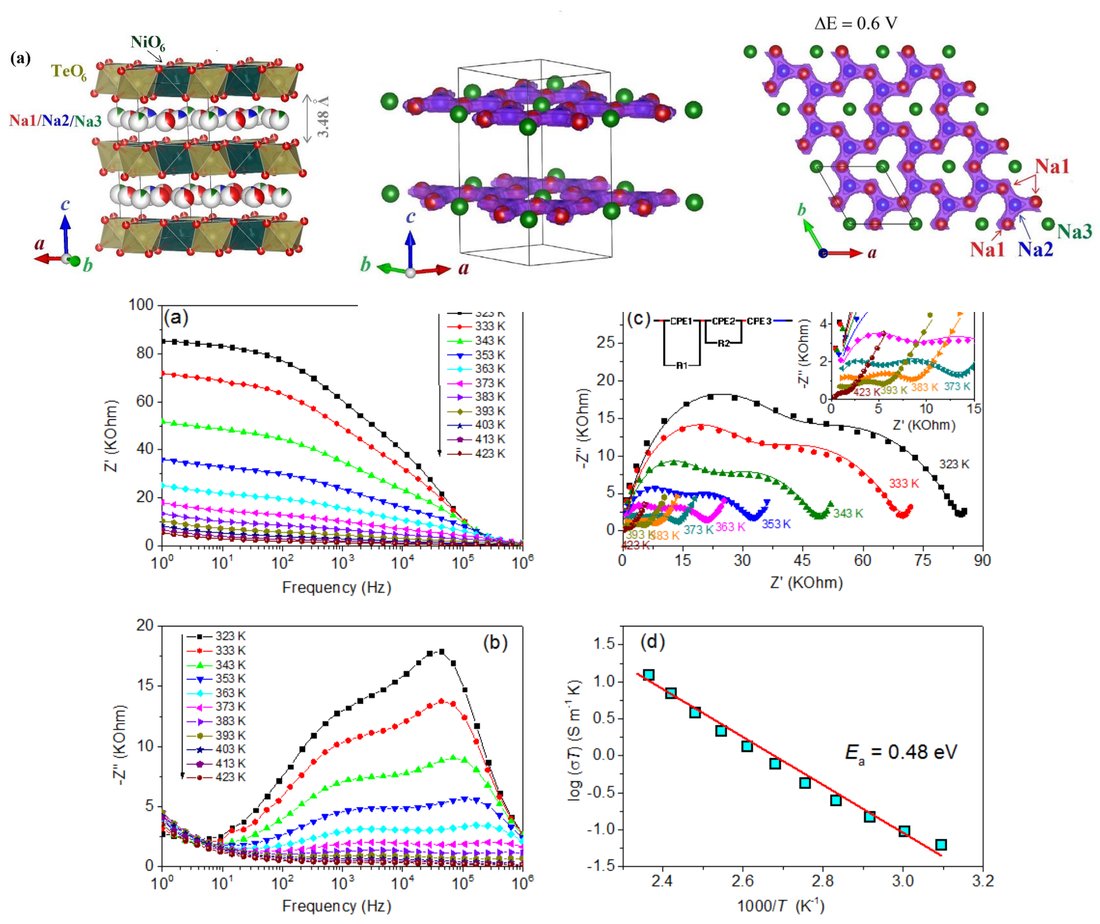
Magnetic Field: 0-2 T

Gases: Ar, N_2, O_2

Energy materials, (battery materials, super ionic conductors, mixed conductors)

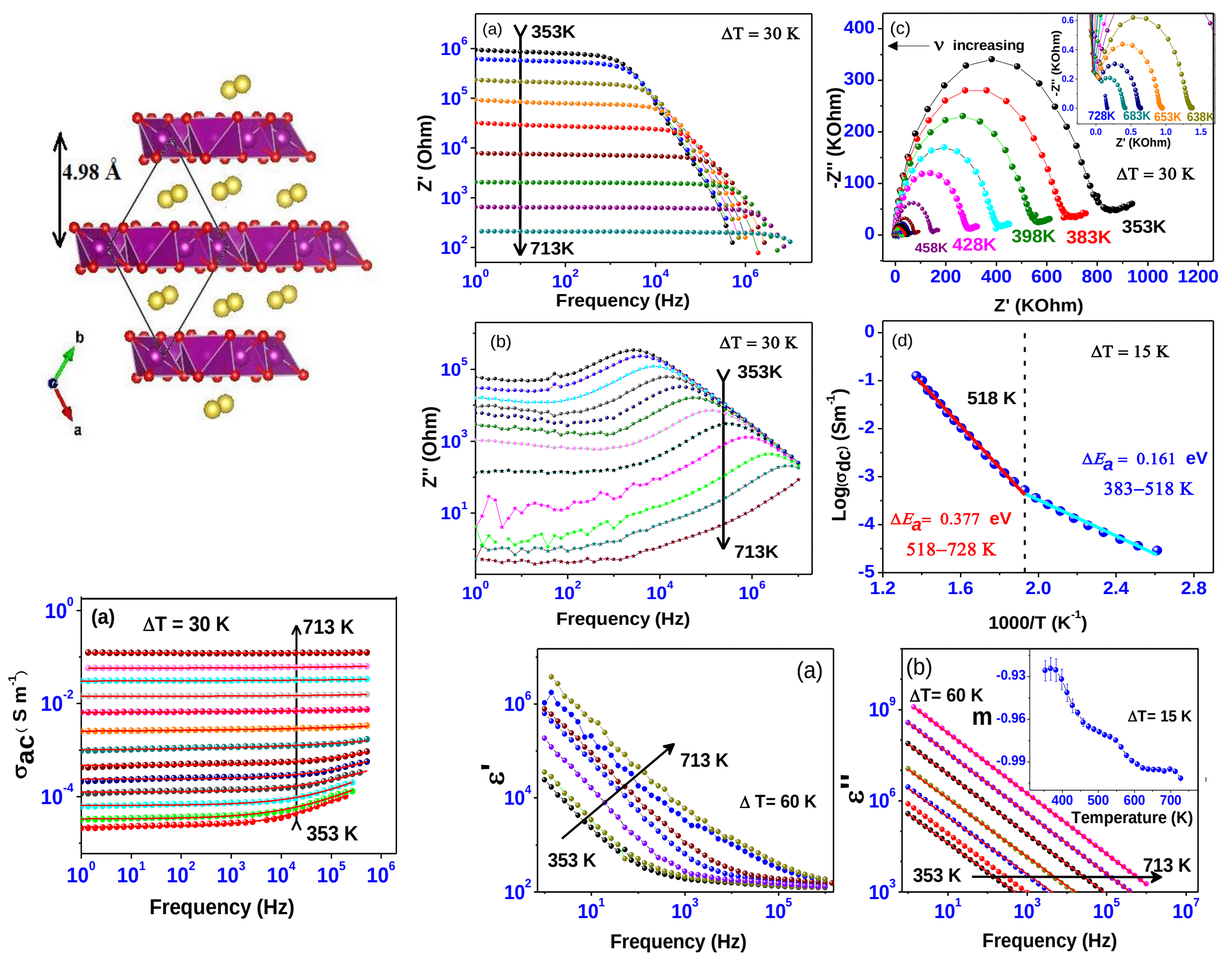
Recent Experimental Results

Ionic Conduction in Layered Battery Material $Na_2Ni_2TeO_6$



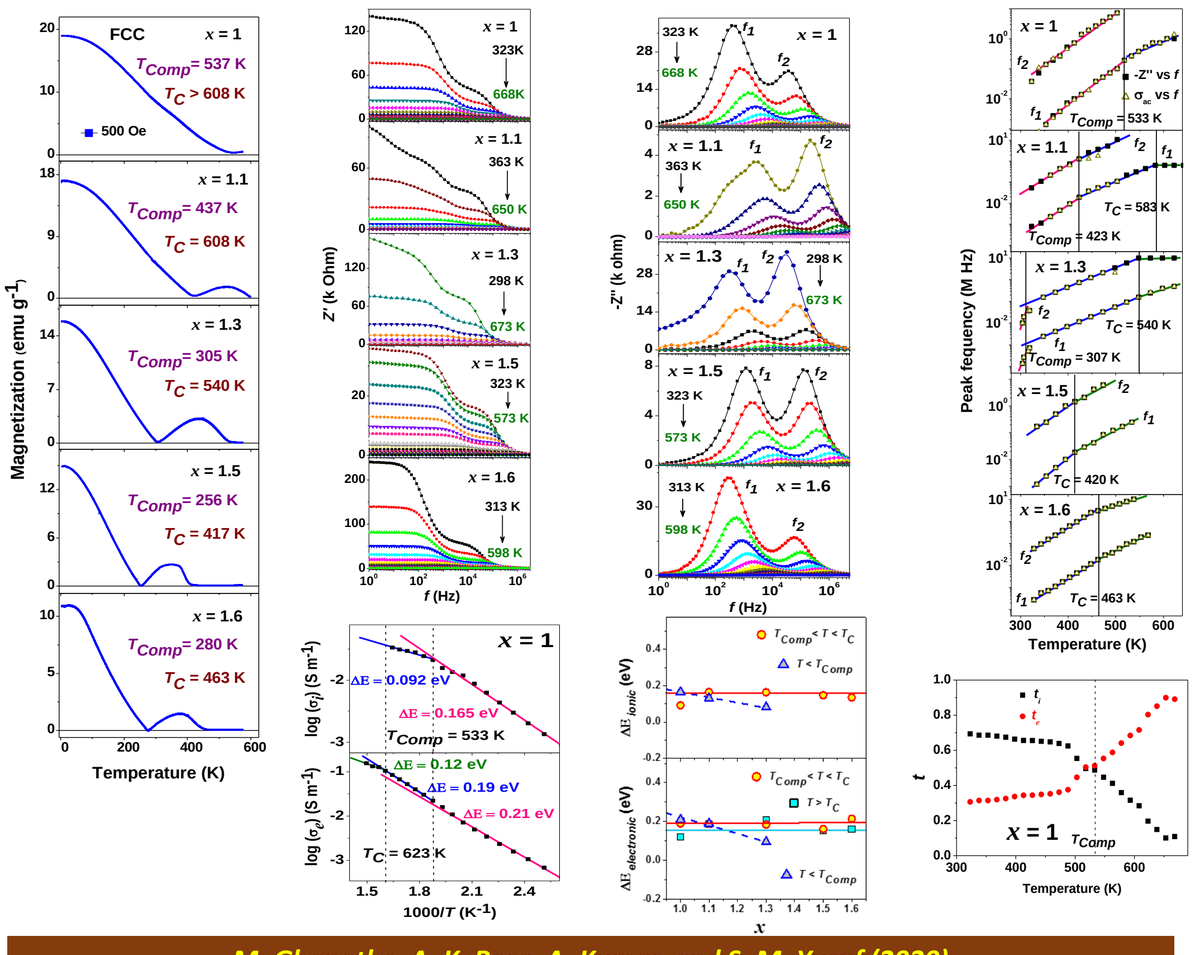
A. K. Bera and S. M. Yusuf, J. Phys. Chem. C 124, 4421 (2020).
A. K. Bera, N. Shah, and S. M. Yusuf AIP Conf. Proc. 2115, 030568 (2019).

Ionic conduction properties of Layered Battery Material $Na_2Mn_3O_7$



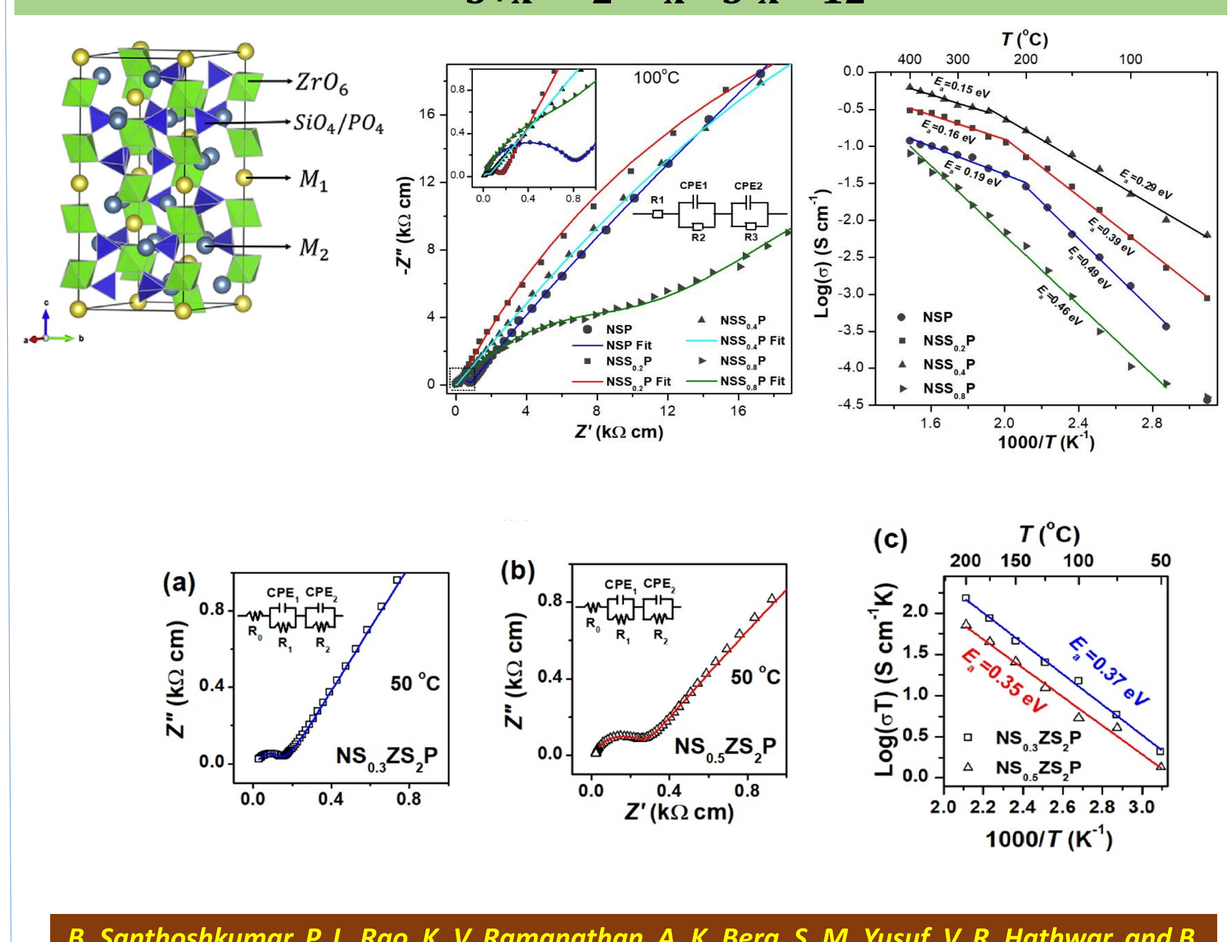
B. Saha, A. K. Bera, and S. M. Yusuf (2020)

Magneto-electric coupling properties in $Li_{0.5}Fe_{2.5-x}Cr_xO_4$



M. Ghanathe, A. K. Bera, A. Kumar, and S. M. Yusuf (2020)
M. Ghanathe, A. K. Bera, A. Kumar, and S. M. Yusuf, AIP Conf. Proc. 2265, 030618 (2020).

Ionic Conductivity of NASICON Materials $Na_{3+x}Sc_2Si_xP_{3-x}O_{12}$



B. Santhoshkumar, P. L. Rao, K. V. Ramanathan, A. K. Bera, S. M. Yusuf, V. R. Hathwar, and B. Pahari, Solid State Sciences (in press 2020)