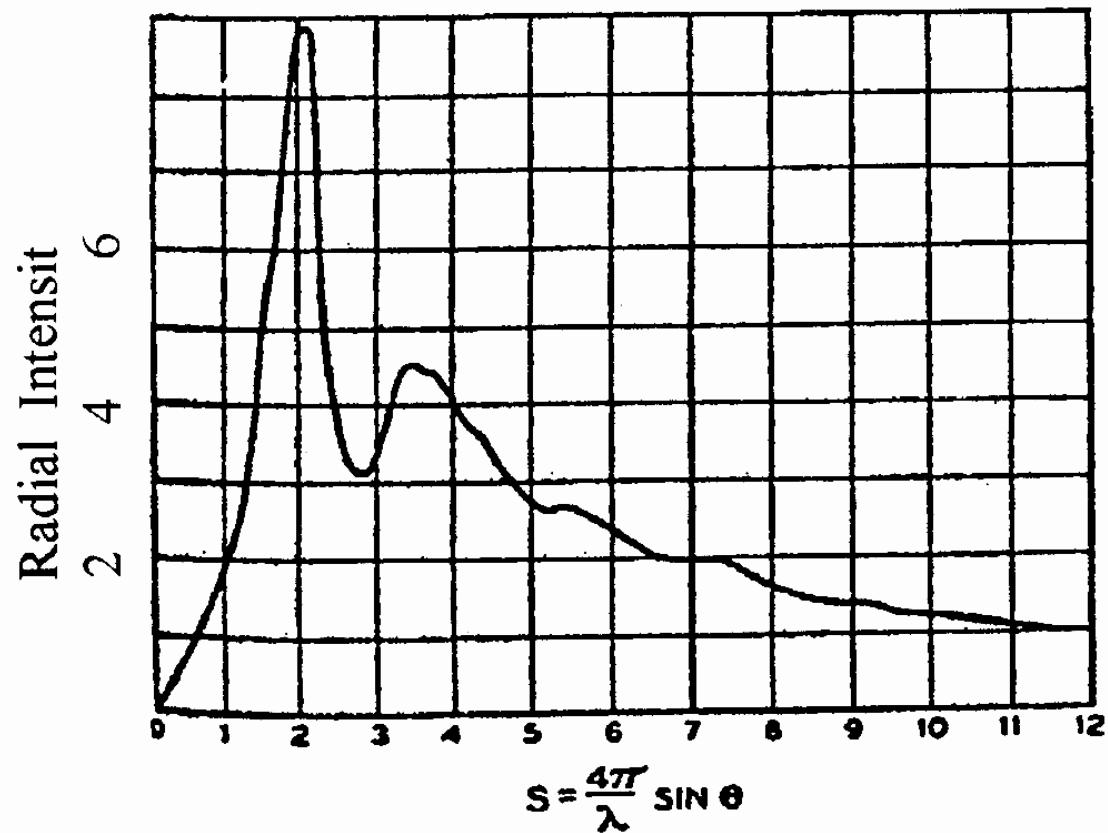


An Introduction to Tellurite Glasses
By Raouf El-Mallawany



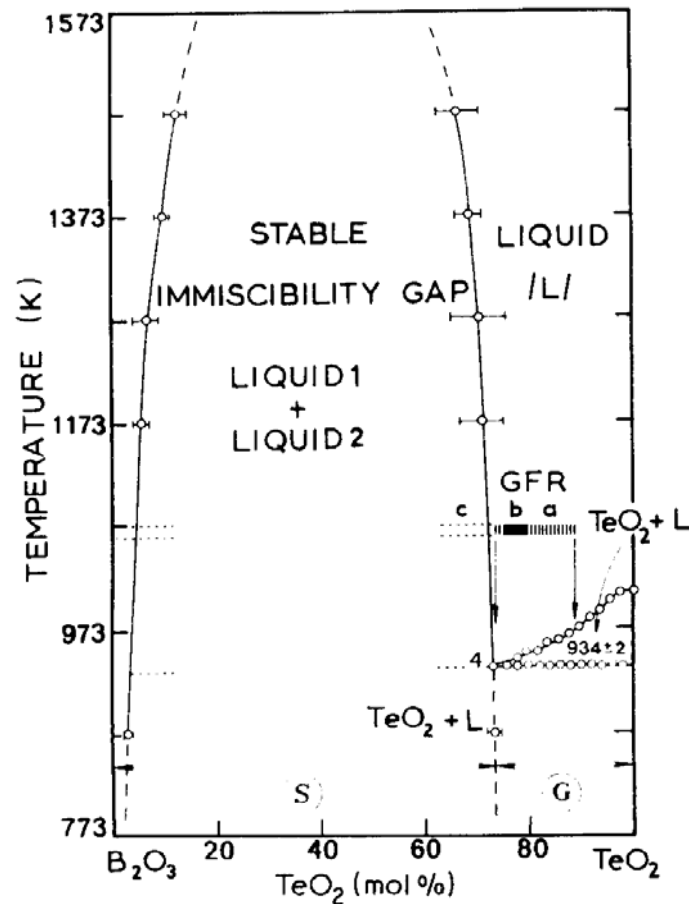
Module 2 - Tellurite Glass History
(continued from Intro Module 1)

The diffraction pattern of TeO₂ glass by Barady G., (1957)



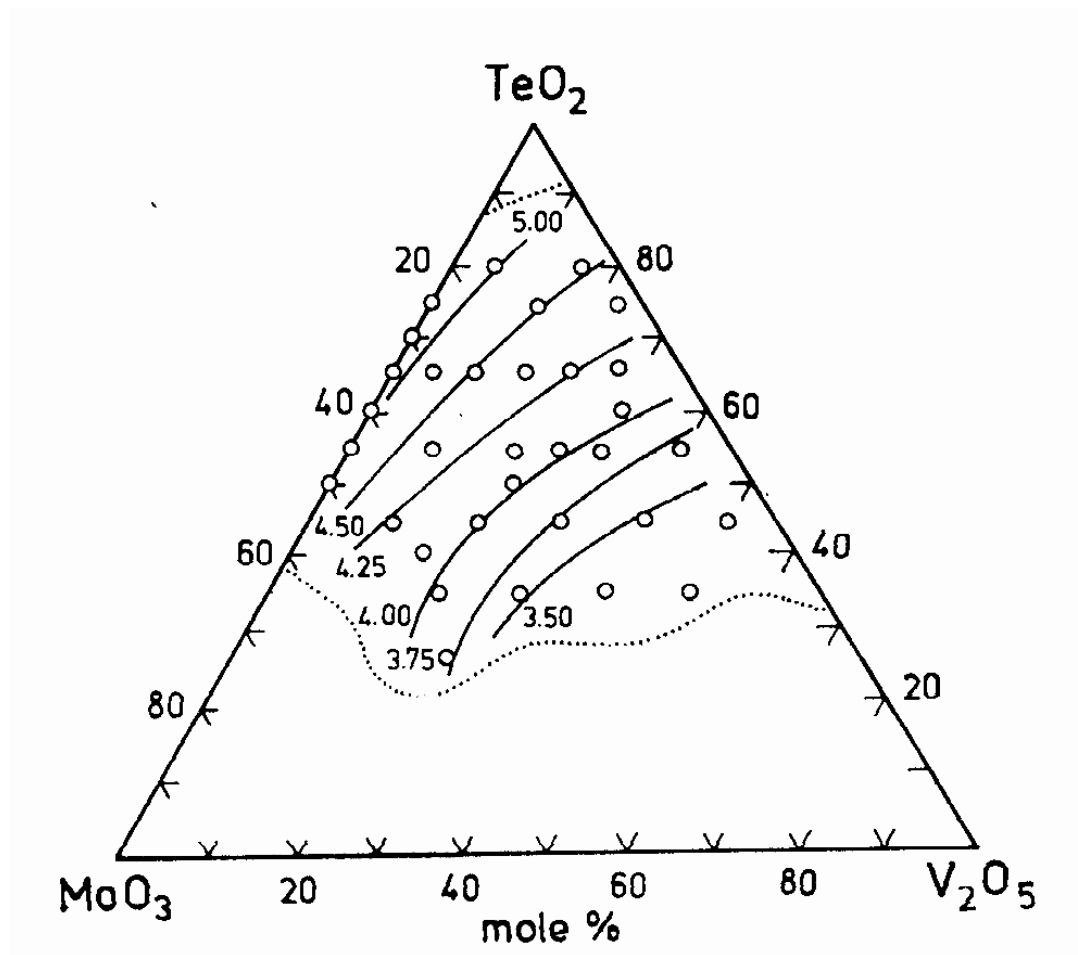
TeO₂ B₂O₃ system as shown by Burger H., et al. (1984).

The produced glass was transparent and 30 geometric points investigated the system at small intervals depending on the composition and its distribution in the G or S regions GFR Glass forming region

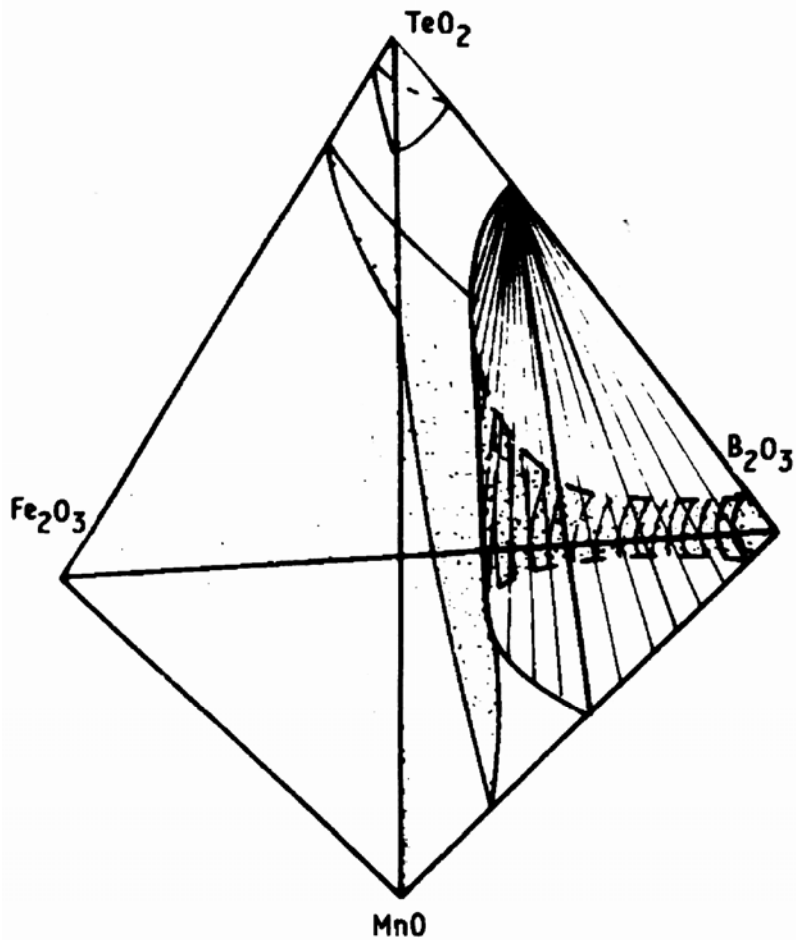


Glass formation and density of the ternary TeO_2 - MoO_3 - V_2O_5 glasses

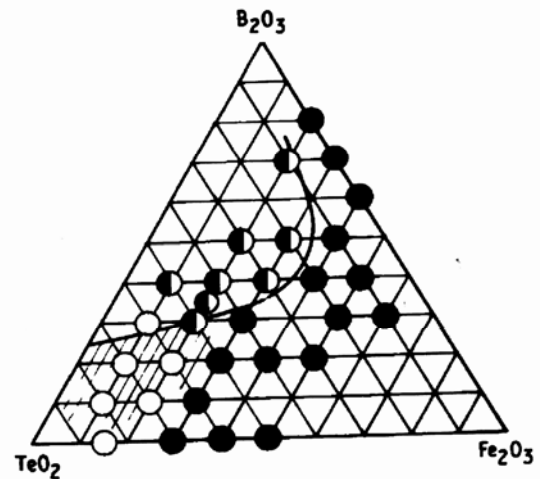
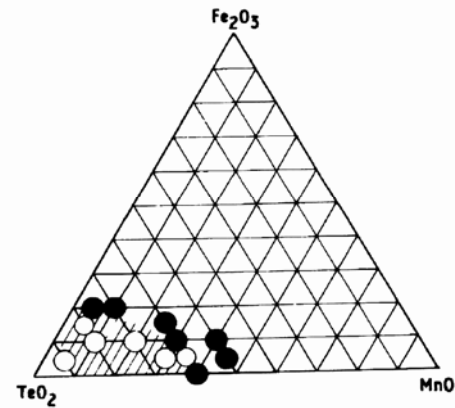
by Kozhokarov et al. (1986).



Glass formation range of ternary and quaternary tellurite glasses by Dimitriev Y., (1986)
 o – Glass, ● Crystalline.



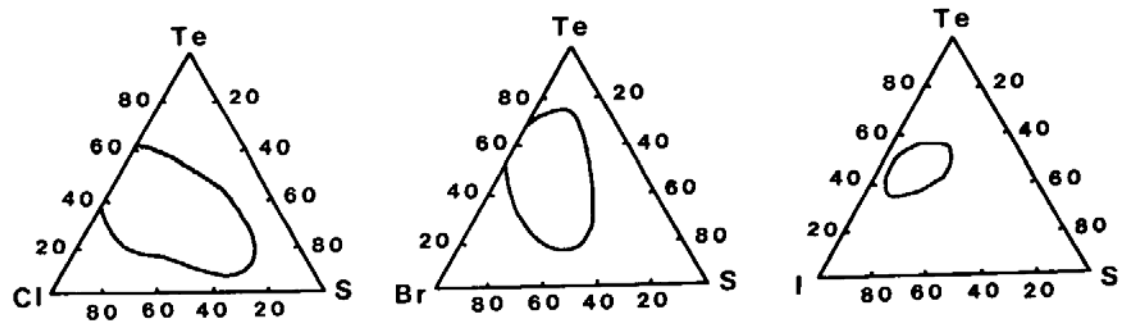
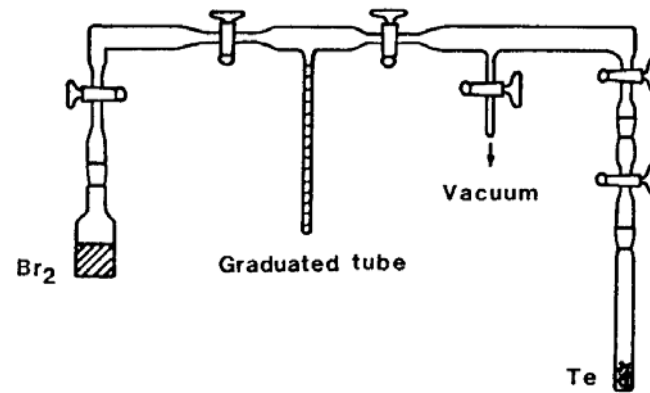
An Introduction to Tellurite Glasses - Intro



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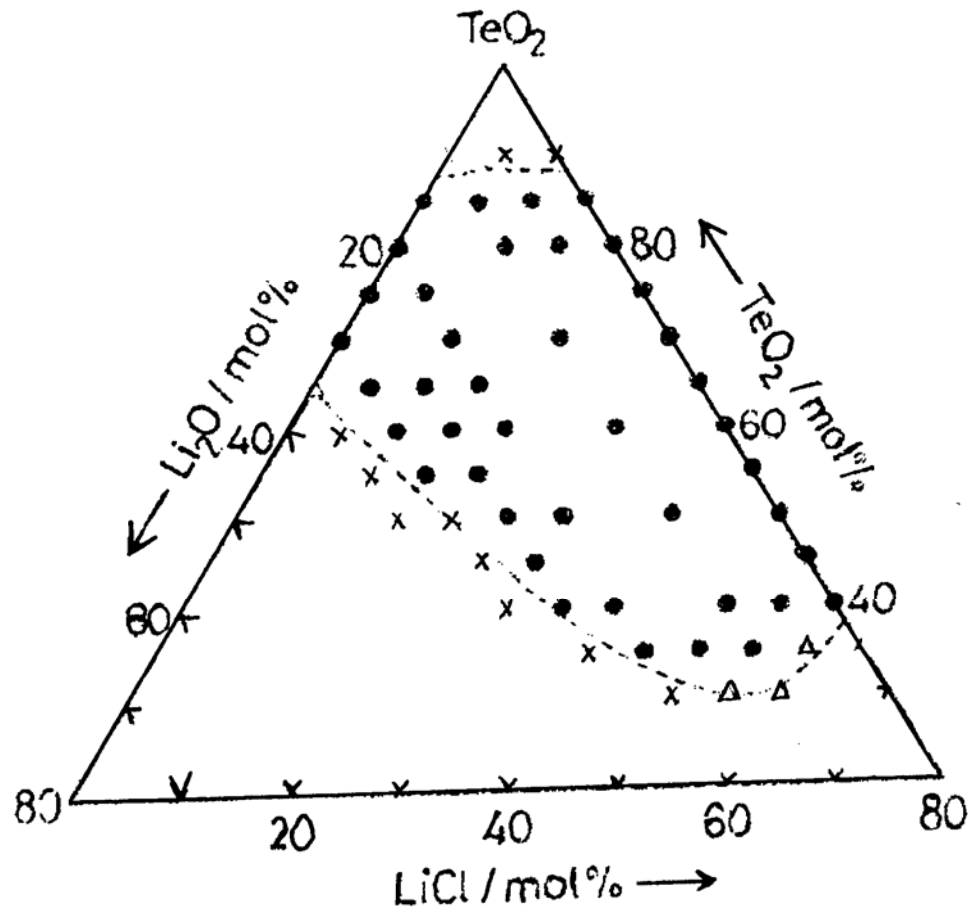
Halide Tellurite

Apparatus used for the preparation of the vitreous Te-Br-S & Te – Br – Se glasses and glass domain by Zhang X., (1988)

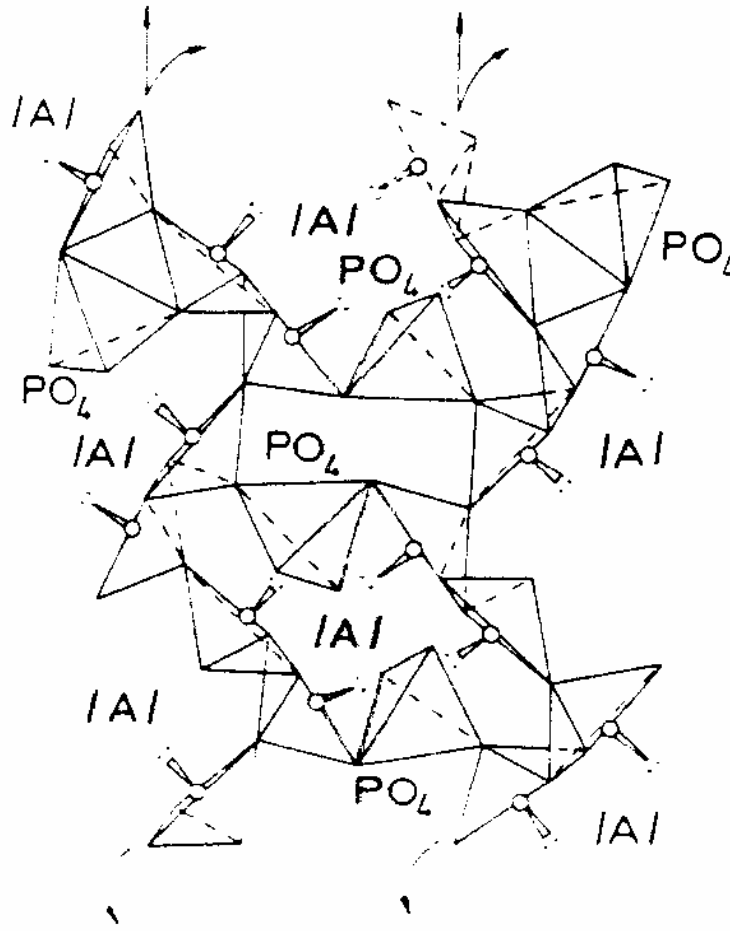


Glass formation of the ternary LiCl – Li₂O – TeO₂ glasses
 by Tanak K., et al (1988)

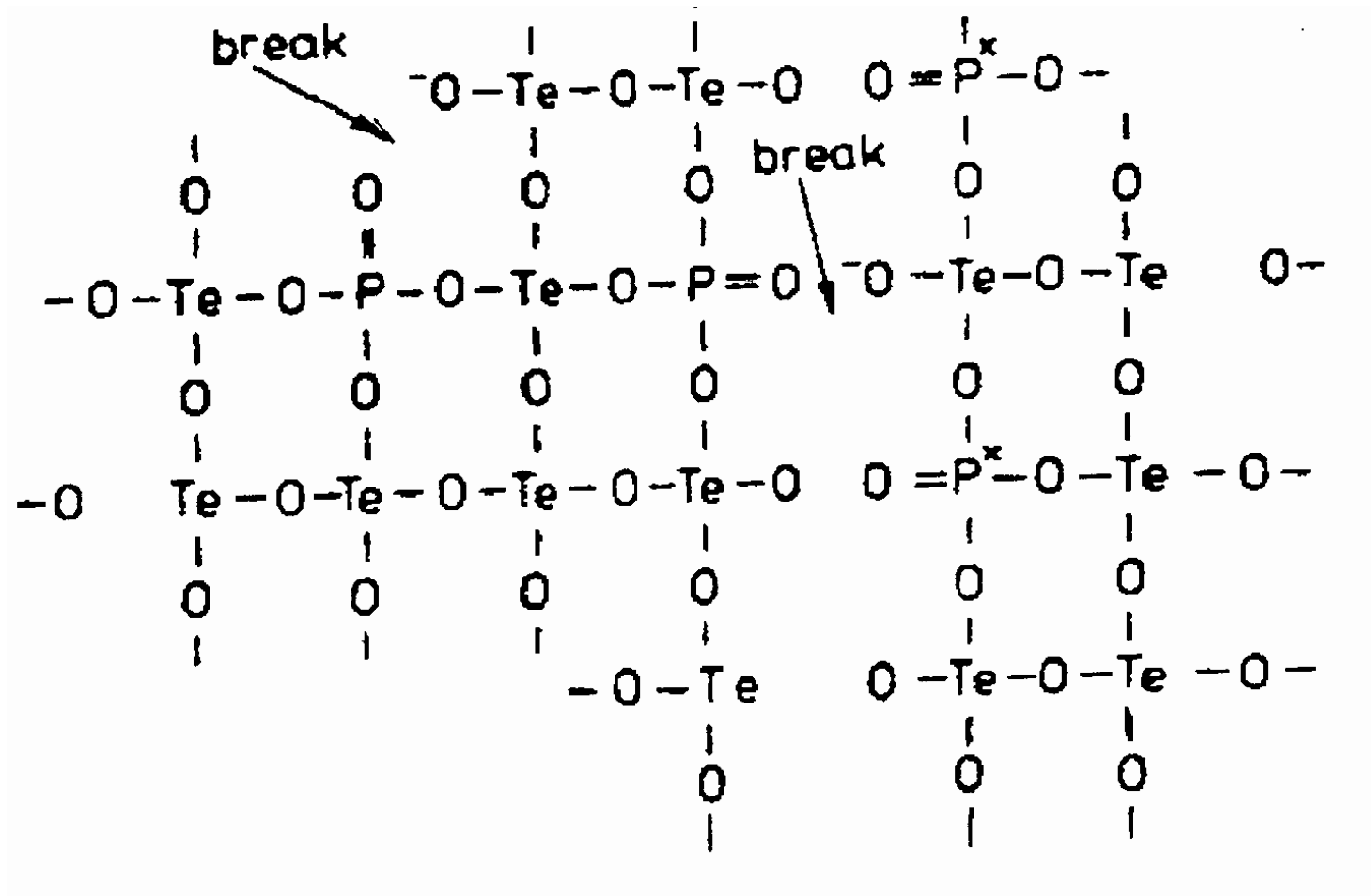
Δ = Partly Crystallized, x = Crystallized, • = Glass.



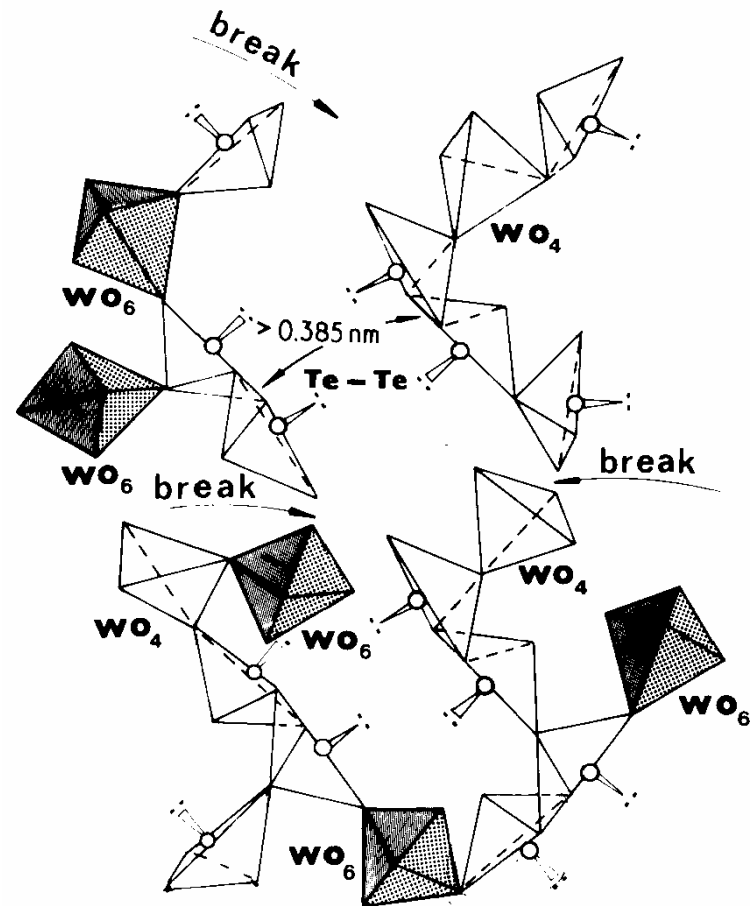
Neov S., et al (1980) used the RDF data to represent a model for the TeO_2 - P_2O_5 glass.



Model illustrated the nature of the initial steps of immiscibility in the P₂O₅- rich glass region by Neov S., et al (1980).



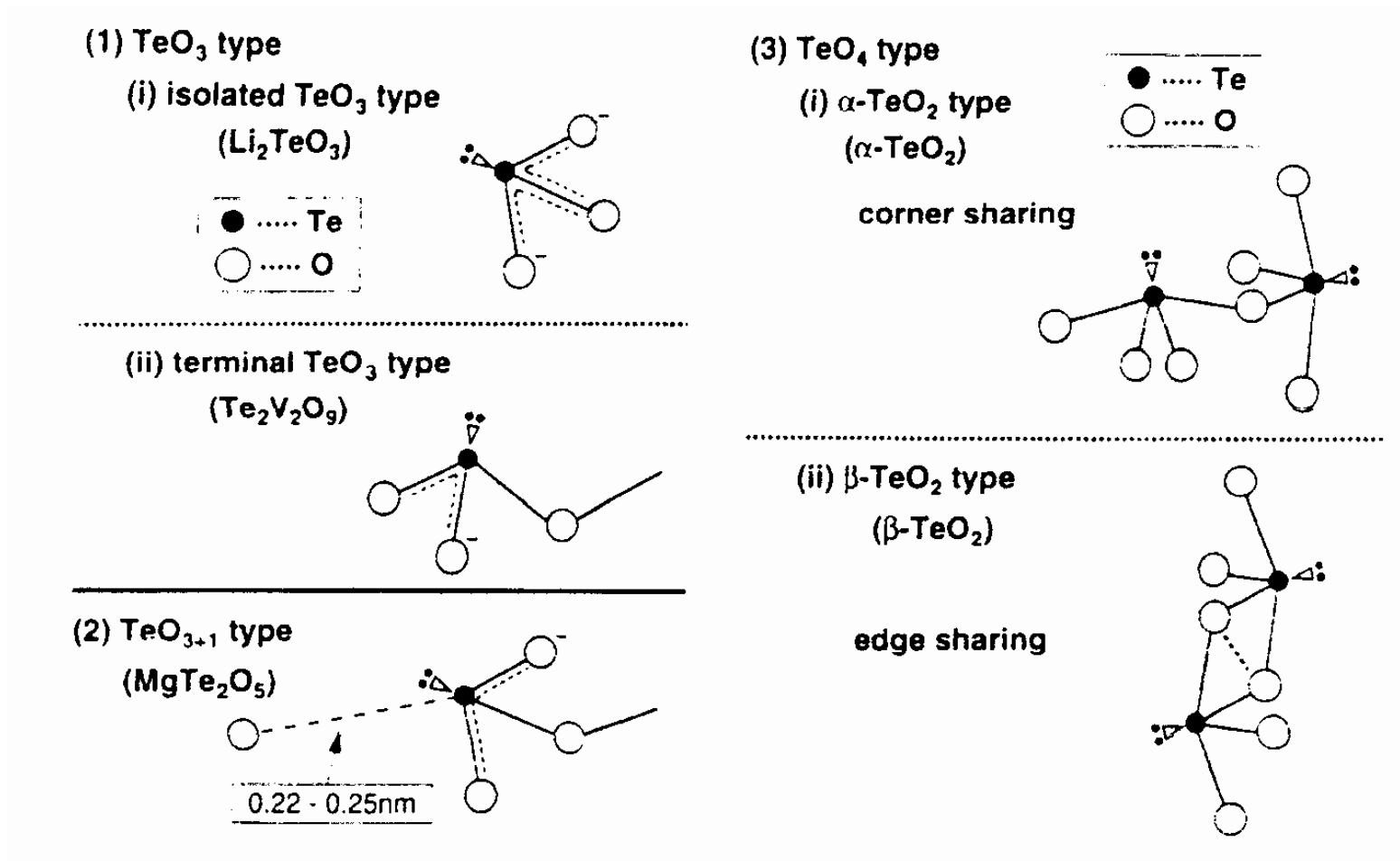
The model illustrating the manner of bonding of the nearest coordination polyhedra in Binary TeO_2 - WO_3 glasses as proposed by Kozhokarov V., (1986).



The classification of structural units of TeO_3 -type, TeO_{3+1} and TeO_4

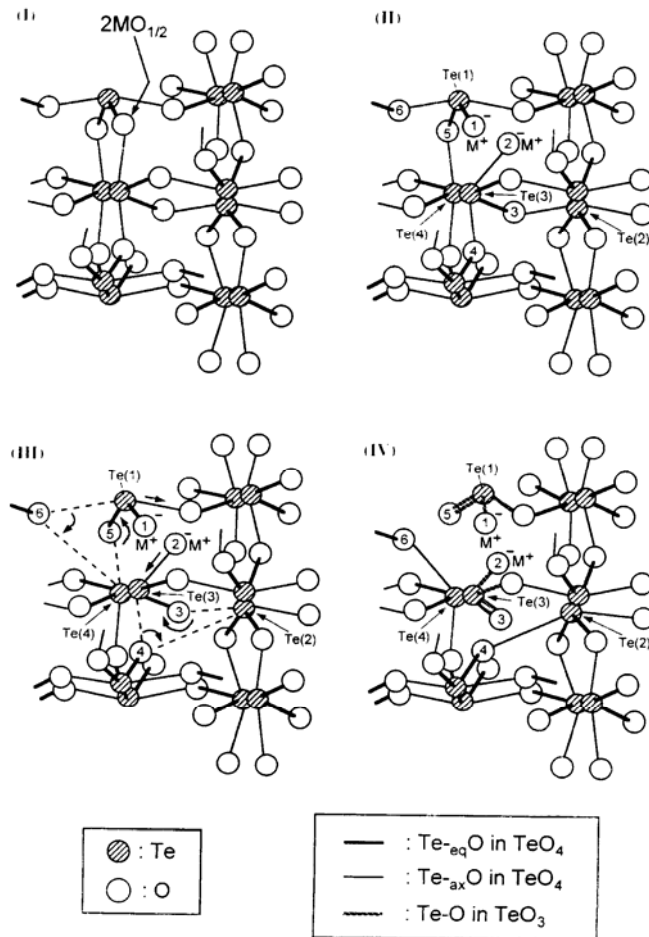
by Sakida S., et al

(1999-A)



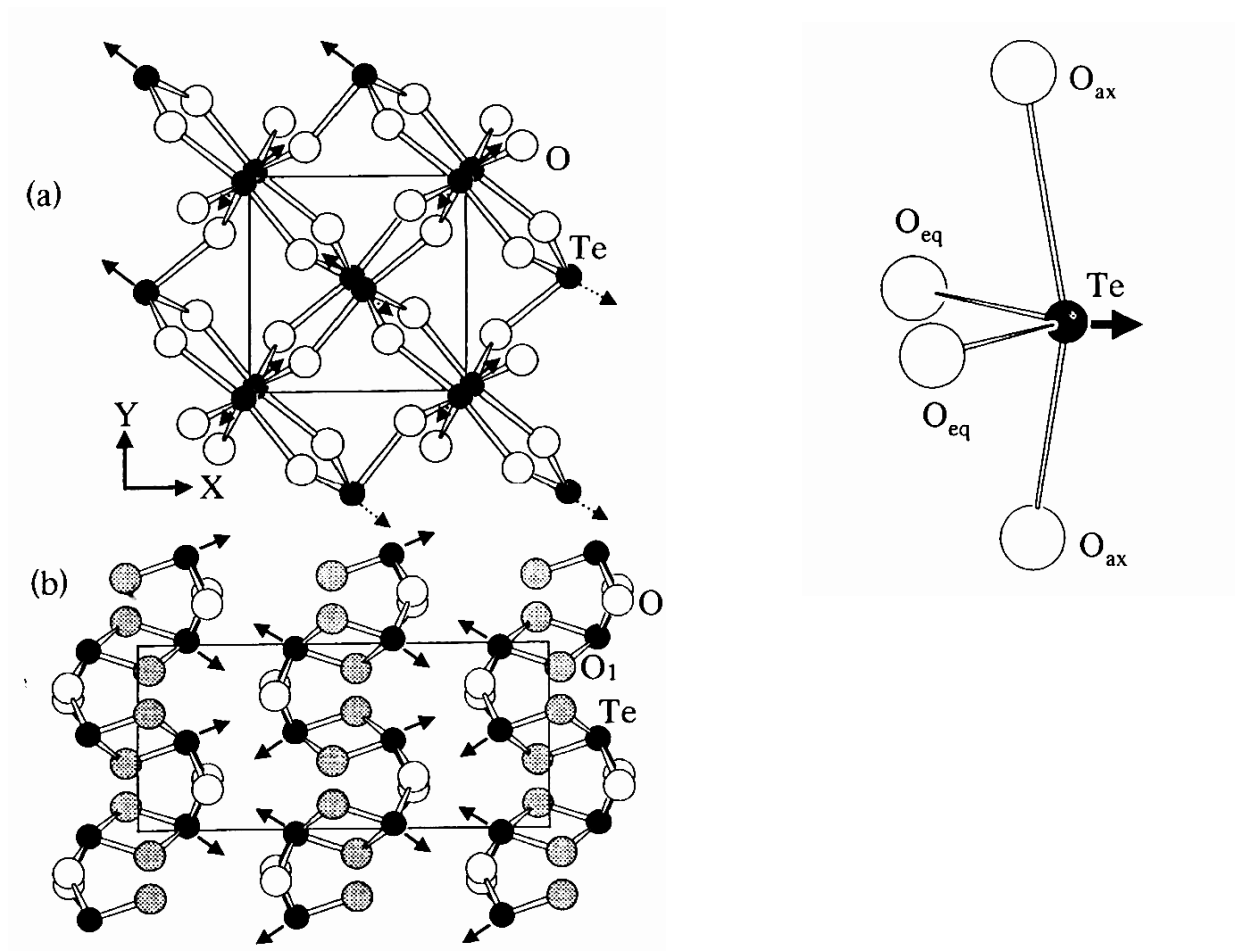
Mechanism for the structural change induced by addition of M₂O to TeO₂ glass containing deformed spirals formed by sharing the corners of TeO₄ tbps as in - TeO₂

by Sakida S., et al, (1999 B).

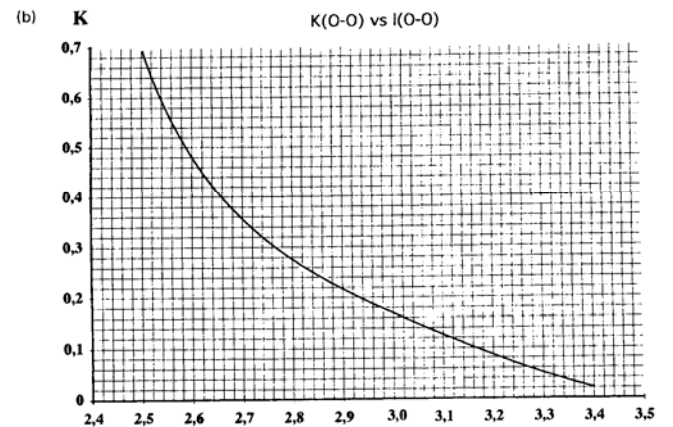
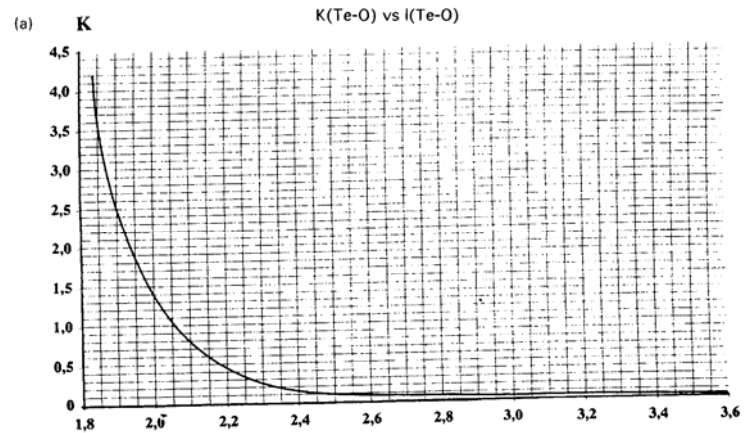


Structural model of TeO4 unit present in -TeO2 , - TeO2 and lattice projections on XY

plane of (a) -TeO2 , (b) - TeO2 by Mirgorodsky A., et al, (2000).



The dependence of the force constants $K(\text{Te-O})$ on inter-atomic $l(\text{Te-O})$ was found in view of the smooth curve as represented .
by Mirgorodsky A., et al, (2000).



From the above Introduction

Tellurite glasses are of interest from both the scientific and technological viewpoints,

Part 1 : Elastic Properties of Tellurite Glasses,

Part 2 : Thermal Properties of Tellurite Glasses,

Part 3 : Electrical Properties of Tellurite Glasses,

Part 4 : Optical Properties of Tellurite Glasses,