

## **Model of Geochemical Ore Systems as a Basic for Exploration IONEX Technology**

<sup>1</sup>GOLDBERG, I.S., <sup>1</sup>ABRAMSON, G.Y. and <sup>2</sup>LOS, V.L. <sup>1</sup>Ionex PTY LTD. Level 1, 55 York Street Sydney NSW 2000 Australia;  
<sup>2</sup>Academy of Mineral Resources. 105 Kunaeva, Alma-ati 480091 Kazakhstan.

The exploration technology is based on a model that considers the empirical fact of redistribution ore-forming and associated elements within a particular geological space that is understood to be a *geochemical system*. Such systems are characterized as conjugations within a space:

- 1) negative and positive anomalies of ore-forming elements and associated elements,
- 2) negative and positive anomalies of siderophile elements (Ni, Co, Mn, etc.)

Ore deposits are part these systems. In such systems siderophile elements form a ring or segments positive anomalies on the exterior zone of positive anomaly of ore-forming elements. Negative anomalies of siderophile elements are found in the central of part of positive anomaly of ore-forming elements. The area of distribution of positive anomaly of ore-forming elements and positive and negative anomalies of siderophile elements constitute the nuclear part of geochemical ore system.

Geochemical systems of ore deposits can have any area from a few km<sup>2</sup> to hundreds of km<sup>2</sup>. A linear dependence has been found between the size of a geochemical system and the resources of an ore deposit. This dependence is the fundamental criterion for the evaluation of the resources the explored ore deposits. The technology can be used in both open and covered areas, in areas with thick overburden (100m or more).