

Playing with the Laws of Chemistry and Law: Exploring Shared Words Across Scientific and Legal Languages

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This contribution presents an interdisciplinary educational pathway for high school students investigating the interaction between legal language and the specialised terms of inorganic chemistry and materials chemistry. Building on a framework previously developed for law and crystallography [1], the project focuses on the circulation of scientific terminology across disciplinary boundaries and on the semantic processes that occur when chemical concepts are incorporated into legal discourse. In fact, linguists have verified that the significant increase in the tasks of the modern state has led to an intrusion into legislative texts of a mass of technical terms belonging to different disciplines [2].

A selected set of terms originating from inorganic chemistry and the chemistry of materials (widely used to describe structures, properties, processes, and classifications of matter) is searched inside of Italian legislative and legal texts. The students will find whether these terms retain their original scientific meanings or undergo semantic shifts, simplifications when employed in legal contexts related to industry, environment, technology, and public safety. The pathway combines introductory theoretical elements from both chemistry and law with applied activities centred on lexical studies and comparative semantic analysis. Participants engage with free access legal databases, also in a diachronic way [3, 4], to identify occurrences of chemical terminology in normative texts, fostering awareness of the role scientific knowledge plays in the formulation of legal norms governing materials, substances, and technologies. By highlighting the polysemy and recontextualization of chemical terms within legal language, the initiative aims to strengthen both scientific and legal literacy, promote critical reading of institutional texts, and encourage an integrated understanding of scientific and humanistic domains.

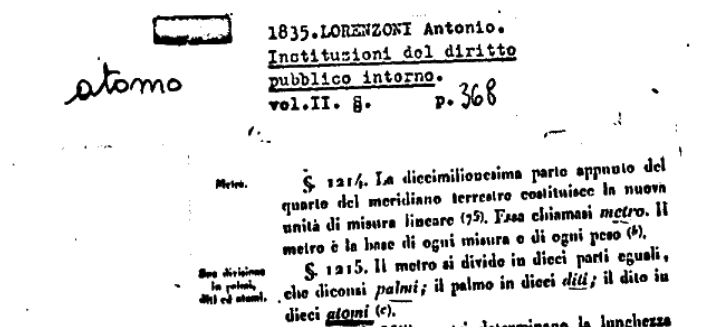


Figure 1. Example of a LGI database card, where atom is defined as a unit of length in an Italian legal doctrine text in 1835.

References

- [1] F. Romano, A. Ienco (2026) in "CHANGE THE GAME, Ricerca in gioco" C. Menotti, A. Torreggiani, A. Zanelli Ed., Cnr Edizioni: Roma, 195-198.
- [2] T. De Mauro, Storia linguistica dell'Italia unita, 3. ed., Roma-Bari, Laterza, 1986.
- [3] <https://www.normattiva.it/>
- [4] <https://www.igsg.cnr.it/Vocanet-LLI/index.html>