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...CIPLE OF INTELLECTUALIZATION OF THE ENGINEERING EDUCATION IN THE LIGHT OF REQUIREMENTS OF THE BOLONSKY CONVENTION

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...rmation of unique scientific space in Europe is a reality without which ...ossible to reform and realize the development strategy of high education ...ne. Dynamic development of a world society, introduction of new tech... and modernization of knowledge, independent intellectual develop... communicative abilities, the independent and creative approach to deci...king, formation of informational and social abilities.

For today process of training of chemistry shows more diffi
there is a necessity during training chemistry become proficient of
ecological literacy, economics, innovative management and another
as our experience testifies, the situation in agrarian high schools be
plicated that on engineering, technological, agronomical specialities
rive, not only insufficiently prepared for development chemical
also is frequent with low level of intellectual development.

Behind the data of the international researches PISA analysed
entrants are not able attentively reading by the chemical text, accurat
swer questions, to interpret chemically information, to construct
quences, compare etc. Difference between results of school teaching
try and training practice in a higher educational institution are so gre
sence of sufficient I.Q. imposes serious restriction on preparation of the
tent expert. The requirement of specialist with a high level of developme
tellectual possibilities, from a position of the employer, provides growth
ity of their professional work. In these conditions there is a severe need
sive the development of intellectual possibilities of each student.

Thus, development of intellectual possibilities of student – it's
task qualitative training for future by competent and eminently qualified
Thus, improvement chemistry training it is impossible without the organ
of complete development intellectual possibilities, that allows students p
in substance a scientific material, to accumulate experience cerebration
use the had knowledge as a way of the future development [3,4].

On chair of the general chemistry of National University of Life and
ronmental Sciences of Ukraine for development intellectual probably stu
are used by receptions and techniques which have different possibilities
spect of working off of mental, intellectual operations. To them carry a prob
debatable method of training, scientific character, availability and system
material statement etc. Effective are intellectual trainings, problems semi
electronic textbooks, innovative technologies. The great popularity among
dents such forms, as scientific discussions, debates use popularity also.
are original intellectual example for intellect in which result the true is born,
accent not only on scientific problems, but also on problems of a everyday
and industrial character.

The special attention is taken away to fundamental scientific bases gen
and inorganic chemistry which accompany development such of chemical thin
ing as the analysis, synthesis, comparison, generalization, ordering, abstracti
formation of concepts, statement and the decision of problem situations. Fe
tures of transition chemical processes which occur as in the nature, a life, a
about conditions are analyzed. To them, first of all have such processes as syn
thesis, electrolytic dissociation, hydrolysis, oxidation-reduction, various electr
chemical transformations etc. Thus the receptions are priority, allowing to ge
eralize, about analyze and to explain a material, as much as possible approach
ing teaching a subject to a current state of a chemical science.

...ement of intellectual possibilities becomes teachers chairs both ..., and on laboratory and seminar employment. For example, the ... of problem questions for this purpose is under construction. The ...ment (the information, debate or with problematical character ele... discussion of a certain question informative activity of students, ...llectual abilities, stimulates creative activity, accustoms to itself.

...ing of a considerable quantity of the information is possible only at ...rmation of ability of theoretical generalizations and systematization ... A classical example of ordering of knowledge - periodic system of ... D.I.Mendeleev. The most important kind systematization – classifi... for example inorganic, organic, co-ordinating compound, oxidation-...actions.

...ing generalization and ordering of knowledge as the development ...ntellectual possibilities the big role plays comparison. As a consider... ...ity of formulas, the facts, rules, laws to remember difficult, during ...son of a material great to gain experience drawing up by students of the ...ted tables, diagrams, schemes at which formulas, laws, rules are sys... ...d for are certain by signs.

...Development of intellectual possibilities of students is the purpose of me... ...l work which is spent many years on chair of the general chemistry. In ...an special attention is to working out of scientifically-methodical mainte... ...of discipline. A complex of scientifically-methodical materials from dis... "The general chemistry", for example, includes the typical program of ...pline, the textbook "The general chemistry", the complete electronic lec... ...the calendar plans, a laboratory practical work, a working writing-book for ...ndent work of students, the collection of test tasks.

In the methodical literature the attention is focused on bilateral intersub... ...communications between fundamental and special disciplines, on tasks ...ich unite them. Very important that student felt necessity of theoretical ...wledge for its further practical activities. The theory without practical exam... ...complicates understanding and perception of a teaching material, contra... ...engineering thinking.

The basic feature of the Working writing-book for independent work of ...dents is systematization theoretical and experimental materials, its visualiza... ...in the form of tables, schedules, schemes, etc. In it systematization scientific ...terial carefully selected and adapted to speciality students, reveals communi... ...tion theoretical position chemistry with practice of the future engineer, other ...quirements, to present to the substantial block deductive subject models are as ...much as possible considered. The sequence of a statement of a material answers ...substantive provisions of classical didactics. Information materials of the Work... ...writing-book has the accurate organization and logic accents.

Such approach to a statement of an spanding-methodical material, in our opinion, develops intellectual possibilities of students thanks to acquisition of

abilities to define relationships of cause and effect, to analyze and to the information, transform it in knowledge and abilities.

Experience of use of the developed complex of scientifically-based materials from discipline "The general chemistry" shows that considerable expenditure of time for its preparation completely pays off development of intellectual possibilities of students that in turn raises effective and quality of the

Thus, the effective combination of various principles, under methods, ways makes active development of intellectual possibilities and provides preparation of qualified specialist which owns system of knowledge, experience, style of thinking, system of higher intellectual professional qualities.

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