

A SHORT REVIEW ON THE DEVELOPMENT OF THE INTERNATIONAL CHEMISTRY OLYMPIADS

1ST IChO

CZECHOSLOVAKIA, Prague

June 18 – 21, 1968

- Four days
- Three teams of six pupils (Czechoslovakia, Poland, Hungary).
- 4 theoretical and 2 practical tasks in mother tongues. Two hours were allotted for theoretical problems. Two problems were solved in one hour, then 15 minute interval, and finally the other two problems were solved in another hour.
- Maximum points: 61.
- The first three winners were given prizes. The first one gained 61 points.
- A session at the end:
 - preliminary regulations accepted;
 - decision to invite other “socialist” countries.

2ND IChO

POLAND, Katowitse

June 16 – 20, 1969

- Five days
- Four teams of five pupils. New country was Bulgaria. The German Democratic Republic sent two observers.
- The competition itself was held in two days. Experimental tasks - the first day, theoretical tasks in the other day. The tasks were given to the competitors in their mother tongues. The translation was guaranteed by the organizer.
- Maximum: 100 points.
- Curiosity: there were three winners with the same score: (49 points).

- Final session: A discussion about the differences in the curricula of chemistry in the particular countries took place at the end of the competition. It was definitely decided not to evaluate and publish the results of the countries also in the future since it might have bad consequences and an unhealthy rivalry among the participating countries could arise. Decision to invite more “socialist” countries to take part in the competition.
-

3RD IChO

HUNGARY, Budapest

July 1 – 5, 1970

- Five days
 - Seven teams, each of four pupils. Curiosity: Two more pupils were present in each team as substitutes!
 - Countries: Czechoslovakia, Poland, Hungary, Bulgaria, GDR, Romania, Soviet Union.
 - IChO languages: Russian, German, French and English. Besides that official interpreters into mother tongue were at the disposal of the delegations.
 - The competition was held in two days. Change: Theoretical tasks first, followed by the experimental tasks in the other day. The competitors received the tasks in their mother tongue. The translation was guaranteed by the organizer.
 - Maximum 100 points.
 - More than first three winners were given prizes.
 - Final session: preliminary regulations accepted.
 - Although the 3rd IChO was successful, no place and date was fixed for the 4th IChO. And thus, no IChO was organized in 1971. After some diplomatic work on ministry level it was agreed on the next three organizers for the following years: Soviet Union, Bulgaria, Romania.
-

4TH IChO

SOVIET UNION, Moscow

July 1 – 10, 1972

- Ten days
- 7 countries each of four pupils and two accompanying persons, mentors.
- The competition was held in three days.
July 4th: Pupils solved 6 theoretical problems. Practical problems from qualitative analysis and quantitative analysis were performed in laboratories on July 6th and July 7th, respectively.
- Maximum 100 points.

- At the first session the International Jury was established and a new Statute of IChO was discussed and adopted.
- For the first time the organizer sent 60 preparatory tasks (without detailed solutions) in advance to all participating countries. All mentors praised this activity since it influenced very positively the preparation of pupils as well as the results of competitors. The best one gained 88 points, the worst one 31.5 points.
- At the last session of the International Jury a proposal was accepted to invite further “socialist” countries to participate in the IChO. (Vietnam, Mongolia, Cuba, but not China!).
- At the closing ceremony a representative of Bulgaria invited the delegations to take part in the next 5th IChO in 1973. This was a turning point in the history of IChO because after the 4th IChO a representative of the host country made during the closing ceremony of the current IChO an official invitation for the next IChO and it was addressed to all participating countries. Consequently, an unwritten rule was also accepted: all countries which attended the current IChO could take part automatically in the next IChO.

5TH IChO

BULGARIA, Sofia July 1 - 10, 1973

- Ten days
- 7 countries, 28 pupils.
- Nothing has changed concerning the course of the competition: two days (theoretical part first), the tasks in mother tongues, translations made by the organizer, the role of mentors was to check the translation and the corrections of the pupils' solutions was done by the authors!!
- Maximum 100 points but still there was no rule about the fixed proportion between the theoretical and experimental parts.
- The proposal was accepted not to award only the first three winners but more proportional to the number of participants (about three first places, three second places and three third places).

6TH IChO

ROMANIA, Bucharest July 1 – 10, 1974

- Ten days
- Romania had the courage to invite Sweden and Yugoslavia(!). Austria and Federal Republic Germany sent their observers.
Therefore 9 countries participated: Czechoslovakia, Poland, Hungary, Bulgaria, GDR, Romania, Soviet Union, Sweden and Yugoslavia.

- Competition: the same course as at the 5th IChO.
- Romania organized a seminar for the first time. This two-day seminar was dedicated to the Olympiads and problems connected with chemical education in different countries. The representatives of Austria, FRG and Sweden reported on the teaching programs in their countries.
- To the problems of Olympiads:
 - 1) "Gaudeamus igitur" was proposed as a hymn of the IChO.
 - 2) The IChO tasks should be adapted to the level of pupils and the creative feature of the tasks should be emphasized.
 - 3) Historical approach should be kept in the tasks "so that the pupils would not come to the wrong conclusion the world begins with them."

7TH IChO

HUNGARY, Veszprem

July 1 – 10, 1975

- Ten days
- 12 countries each of four pupils, i.e. 48 competing pupils. New countries: Austria, FRG, Belgium.
- Novelty: For the first time the Xerox copies of the solutions were made and corrected separately by both the authors and the mentors. Both corrections were then compared.

SPECIAL SEMINAR ON ICHO IN ŠTIŘÍN NEAR PRAGUE (CZECHOSLOVAKIA)

May 3 – 6, 1976

- 9 countries took part, and a representative of UNESCO.
- Program:
 1. New Regulations;
 2. Co-operation with non-governmental organizations.
- New regulations were discussed in details and finally accepted. The ratio between theoretical and experimental part was stated as 60 : 40 points. The Regulations were issued by the Czechoslovak Committee of ChO in four official languages and the 9th IChO was already organized according to them.
- The possibilities of UNESCO were explained and discussed. Co-operation with UNESCO was possible and it was realized at the 9th IChO in Bratislava, Czechoslovakia for the first time.
- The idea to create any coordinating committee of IChO appeared for the first time. According to the representative of UNESCO it was necessary to have such a body since it could be a partner for UNESCO in making some contracts in the future.

8TH IChO

GERMAN DEMOCRATIC REPUBLIC, Halle

July 10 – 19, 1976

- Ten days
- 12 countries participated, 46 participants, (Belgium, only 2 pupils).
- The competition as in Veszprém 1975.

Differences:

- Points altogether (100 theory, 60 practice).
 - Preparatory tasks in four languages, they contained solutions for the first time.
 - The competition tasks were prepared in four official languages. For the first time the mentors had to translate the tasks very quickly into the mother tongues of competing pupils and they even had to produce the tasks in four copies on type machines. The era of well known “long nights” began.
 - For the first time the Jury was separated from the competitors in the days of the competition.
-

9TH IChO

CZECHOSLOVAKIA, Bratislava

July 4 – 13, 1977

- Ten days
 - 12 countries, 47 competing pupils.
Observers from Finland, Turkey and UNESCO.
 - The course of the competition according to the new Regulations which involved the best experiences of the previous Olympiads.
 - Maximum 100 points; 60 theory, 40 practice. Experimental technique and skill still appreciated.
 - Differences:
 - 1) For the first time the winners were awarded real medals (gold, silver and bronze). Only a written diploma was given to a winner before.
 - 2) The Polish delegation was allowed to send one more person in a role of the observer since the next IChO was supposed to be organized in Poland. Later it became a rule.
 - 3) The Third seminar on the development of IChO was organized in the co-operation with UNESCO. Program: Short reports of representatives of participating countries on the level of chemistry teaching in their countries. The expected role of UNESCO in the development of IChO.
-

10TH IChO

POLAND, Torun

July 3 – 13, 1978

- Eleven days
- 12 countries each of four pupils: 48 competing pupils. Two new countries: Finland and Turkey. Two countries missing: Belgium and Yugoslavia. Observer from Spain.
- Differences:
 - 1) The IChO was organized in co-operation with UNESCO which gave a financial support.
 - 2) Decision to give medals according to the system 10 % - 20 % - 30 %.
 - 3) Decision not to give any point for "laboratory technique".Invitation to Leningrad (11th IChO) and a statement that the 12th IChO will be organized in Austria.

11TH IChO

SOVIET UNION, Leningrad

July 2 – 11, 1979

- Ten days
- 11 countries, 44 competitors. Turkey missing.
- The competition as above.
- One-day seminar on chemical education organized by the Ministry of Education. Program:
 - 1) Discussion how chemistry curricula of the secondary schools in particular countries were reflected in the level of competition tasks of IChOs.
- Politics in IChO: Discussion on the aims and function of a Secretariat of IChO. The Soviet Union gave support (at that time it was very important) to the idea to create the secretariat in Czechoslovakia. It was the highest time since the number of "socialist countries" was all the time the same and the number of "capitalist countries" was expected to be increased, in particular after the 12th IChO which was supposed to take place in Austria.

12TH IChO

Linz, AUSTRIA

July 13 – 23, 1980

- Eleven days
- A new situation: The IChO was organized for the first time in a “capitalist country”.
- 13 countries, 52 competitors (plus Netherlands, Italy, Belgium, minus Soviet Union).
- Observers from France, USA and UK.
- Competition as above.
- Politics in IChO again: Soviet Union did not participate.
- Special meeting of mentors from “socialist countries”. Consultations led to the conclusion that a special meeting should be organized in Czechoslovakia in the spring 1982 with the aim to create a Secretariat of IChO in Bratislava.

13TH IChO

BULGARIA, Burgas

July 13 – 23, 1981

- Eleven days
- Organized in co-operation with UNESCO
- 14 countries, 55 competitors (plus: France, Soviet Union; minus Belgium).
Observers from Norway.
- Competition as above.
- Seminar:
 - 1) Chemical Olympiad in different countries, advantages, organization, etc. Since ChO proved to be successful in some countries as an effective tool for encouraging young people in their study of chemistry, IChO can serve as a model for other countries as well.
 - 2) Discussion on secretariat of IChO. Politics again. The representative of UNESCO supported unexpectedly Bulgarian organizers and wanted to create ad hoc a Secretariat with a secretary from Bulgaria. After a hot discussion it was decided that the problem would be solved in Bratislava.

SEMINAR IN BRATISLAVA, April 1982

Program: The necessity to create the Secretariat of IChO is actual.

Finally the program was changed and many reports were read on chemistry olympiads achievements.

Politics again: The Ministry of Education choose a man from Bratislava (the unknown person for the foreign delegations) and appointed him to be the head of the Secretariat. The suggested functions of the Secretariat were changed to such an extent that they could not be accepted by other countries. The final decision was postponed to the 14th IChO.

14TH IChO

SWEDEN, Stockholm

July 3 – 12, 1982

- Ten days
 - 17 teams, 68 competitors. New countries: Yugoslavia, Denmark, Norway. Observers from UK, Nigeria, Venezuela.
 - The competition as above.
 - Novelty: two scientific lectures for all.
 - The session of the IChO: Conclusion was accepted that Secretariat of IChO would be in Bratislava.
-

15TH IChO

ROMANIA, Timisoara

July 2 – 11, 1983

- Ten days
 - 18 teams with 72 competitors. New country: United Kingdom.
 - Observers from the United States and Kuwait.
 - Competition as above. As usual the theoretical examination first (5 hours) and after one day rest the practical examination in the duration of 5 hours with an interruption for lunch like in Sweden.
-

16TH IChO

GERMAN FEDERAL REPUBLIC, Frankfurt am Main

June 30 – July 10, 1984

- Eleven days
 - 21 teams with 84 competitors. New countries were Belgium (absent since 1980), Greece, Kuwait and the USA. Kuwait took part hors concours. GDR was absent, undoubtedly for political reasons.
 - Novelty: The attention was also paid to biochemistry.
 - Competition as above.
 - There came no invitation for 1985 at the closing ceremony. Countries for 1986 and 1987 were available. Since 1979 east and west countries alternated in organizing the IChO. But this year there seemed to be a problem in the “east”. Everybody was hoping the expression “chemists have solutions” would be true again.
 - Much light was produced by the German organizers, for the first time an IChO was closed with a nice firework.
-

17TH IChO

CZECHOSLOVAKIA, Bratislava

June 30 – July 9, 1985

- Ten days
- Bratislava saved the situation and all participating countries were invited to attend the 17th IChO. Everybody was happy with this solution. A year without an IChO would be bad for the continuity of the work of the national committees in the participating countries.
- 21 countries with 83 competing pupils. Kuwait participated again hors concours. Cuba participated for the first time. Canada sent observers. Italy did the same; this year no team from Italy.
- Competition as above.
- The organizers surprised all with a flag dedicated to the International Chemistry Olympiad, with an Olympic logo in the four official languages; English, French, German and Russian. At the closing ceremony the flag was given to the next organizer. This was the start of a new tradition. The Netherlands has the honour to be the organizer of the 18th IChO in 1986.
- A new version of the Regulations of the IChO occurred.

18TH IChO

THE NETHERLANDS, Leiden

July 6 – 15, 1986

- Ten days
- 22 teams with 86 competitors. Canada participated for the first time. China, Cuba, Italy and Switzerland sent observers.
- Technical chemistry was introduced as a new field of interest.
- After the theoretical and practical parts had been finished and the corrections by the authors were ready, the chemistry of each problem was explained to all competitors in a lecture.

19TH IChO

HUNGARY, Veszprém

July 6 – 15, 1987

- Ten days
- 26 teams with 103 competitors. For the first time more than 100 competing pupils. Switzerland and China participated for the first time. Italy was back again after two years of absence. Observers from Australia and Singapore.
- The chemical thread was environmental chemistry.
- Organization of the IChO without any substantial changes.

20TH IChO

FINLAND, Espoo

July 2 – 9, 1988

- Eight days
 - 29 teams were expected, only 26 came! New countries: Australia and Singapore.
 - Due of financial reasons the 20th IChO was shortened to eight days. There was no day rest between theoretical and practical part.
-

21TH IChO

GERMAN DEMOCRATIC REPUBLIC, Halle

July 2 – 10, 1989

- Nine days
 - 26 teams. Singapore was missing but Greece was back again. Observers from Cyprus, Japan, and Thailand.
 - No substantial changes occurred in the competition.
-

22ND IChO

FRANCE, Paris

July 8 – 17, 1990

- Ten days
 - 28 teams. New: Cyprus, Thailand. Singapore was back again. The Soviet Union was missing (no visa).
 - No substantial changes in the competition.
 - With regard to a great number of participating countries and in the expectation that the number will be rapidly increasing in the next five years (many new states were created) doubts were expressed whether the Secretariat would be able to influence the course of the IChOs in the new situation.
-

23RD IChO

POLAND, Lodz

July 7 – 15, 1991

- Nine days
 - 30 teams with 118 competitors. New countries: Latvia, Lithuania and Slovenia. Observers from Mexico and Taiwan.
 - For the first time: practical work first, theoretical work two days later. This procedure fits better with the short first IChO day since the practical work demands less translation time than the voluminous theoretical work.
 - Since the number of countries is already too high and two mentors from each participating country are the members of the International Jury, discussions in the Jury are complicated and it becomes more and more difficult to come to any conclusion. Consequently, the need to create any committee that would be able to prepare some proposals for the working sessions of the International Jury, is desirable.
-

24TH IChO

USA, Pittsburgh and Washington

July 11 – 22, 1992

- Twelve days
 - 33 countries took part
 - Environmental chemistry as a new field in the IChO.
 - No organizational changes in the competition.
 - Final session of the International Jury: A new body of the IChO, so called Steering Committee was established. The first chairman was from the UK. The members are representatives from different parts of the world and are elected by the International Jury for two years period.
-

25TH IChO

ITALY, Perugia

July, 11 – 22, 1993

- Twelve days
 - 38 teams, New countries: Iran, Slovakia, Czech Republic, Venezuela, Mexico, Taiwan, Korea.
 - Business session of the International Jury: Discussion about the rights and duties of the particular bodies of the IChO (Organizing Committee, International body, Steering Committee) and mutual relationship between them. The Slovak delegation proposed to create an International Information Center of the IChO. The idea was accepted and all countries that would be interested in a creation of such a center, were asked to prepare a project for the next IChO.
-

26TH IChO

NORWAY, Oslo

July 3 – 11, 1994

- Nine days
- 39 teams. New: Estonia, Turkey, Ukraine.
- Observers from Argentina, Vietnam, Belarus, Spain.
- Two novelties introduced:
 - 1) informal consultations with the authors before the meeting of the International Jury at which the final versions of the competition tasks were approved;
 - 2) blue (preliminary) and red (final) points were introduced into the grading.
- Business session: The International Jury judged the complex project for a creation of the International Information Center which proposed the Slovak delegation. It was decided by voting that the Center will be established in Bratislava, Slovakia.
- A new text of some paragraphs in the Regulations of the IChO were approved.

27TH IChO

CHINA, Beijing

July 13 – 20, 1995

- Eight days
- 42 delegations with 163 competitors.
- Observers from Belarus, Indonesia, Ireland, Spain, Vietnam.
- Competition as above.
- Business session: The discussion about some paragraphs in the Regulations again open. The necessity to prepare such proposal of the Regulations which would take into account new situation in the IChO competition, was obvious. The Head of the International Information Center of the IChO was appointed to prepare a new and complete version of the Regulations for the next IChO.

28TH IChO

RUSSIAN FEDERATION, Moscow

July 14 – 23, 1996

- Ten days
- 45 teams with 175 competitors.
- Observers from Indonesia, Ireland, Kyrgyzstan.
- Competition as above.
- Business session: The version of the Regulation was accepted which did not suppose the existence of any secretariat of the IChO and a secretary. Some paragraphs left for further discussion. This is also an example how it is difficult to come to a conclusion when the Jury consists of 90 members. The role of the Steering Committee is irreparable.

6th International Workshop on the Development of the International Chemistry Olympiads, Warsaw, Poland, October 25-27, 1996

The main purpose of the working group meeting was to examine some of the problems which had arisen at previous IChOs but particularly those discussed in a preliminary way in Moscow such as:

- Laboratory tasks
- Sub-groups of mentors for evaluations of competition tasks
- Overtraining
- Financing of the IChOs in the future
- Some new regulations for theoretical and practical parts of the competition
- The level of competition tasks and preparatory problems

29TH IChO

CANADA, Montreal July 13 – 22, 1997

- Ten days
- 47 teams, 184 participants
- Observers from Azerbaijan, Brazil, Kazakhstan, Kyrgyzstan, India, and Uruguay.
- The first IChO where the host country made a request for voluntary participation fees and received them from many teams.
- No substantial changes were introduced into the competition.
- Business session: Discussion about some paragraphs of the regulations of the IChO again. General problem of financing of the IChO was discussed but no final decision was reached.
- It was decided to arrange in the cooperation with the organizers of the 30th IChO in Melbourne a seminar on the occasion of the 30th anniversary of the IChO.

30TH IChO

AUSTRALIA, Melbourne July 5 – 14, 1998

- Ten days
- 47 teams with 184 participants
- Brazil, Cuba, and Kuwait who each participated in the 29th IChO, withdrew their participations
- Observers from Azerbaijan, India, Uruguay.
- Kenya, Albania, Brunei and Turkmenistan withdrew for financial reasons.
- The first IChO held in winter and in the southern hemisphere.
- The olympic flame for the first time.

- Reorganization of the arbitrary process. A new level of security had to be explored. The tasks were judged in split sessions but finally approved by the complete International Jury.
- 30th International Chemistry Olympiad Celebration Dinner was organized and as a part of it three lectures were held on the history, theoretical and practical tasks of the IChO, respectively. On this occasion a booklet appeared with the title "A Brief Review on the History and Content of the International Chemistry Olympiad" that was prepared, printed and distributed by the International Information Center of the IChO.
- Business session: Starting in 1999 each delegation would pay a minimum general participation fee calculated with a formula approved by the International Jury.

7th International Workshop on the Development of the International Chemistry Olympiads, Smolenice, Slovakia, October 23-26, 1998

The problems discussed at Smolenice meeting could be divided into nine chapters:

- International Jury sessions,
- final version of the regulations,
- classification of the chemical topics in practical competition tasks,
- media and IChO,
- security during the competition,
- final report of the IChO,
- central fund,
- participation fee,
- IUPAC and IChO.

The results of the meeting were summarized in a booklet "The Latest Problems occurring in the International Chemistry Olympiads and Proposed Solutions", (Editors A. Sirota and M. Kerschbaumer, printed and distributed by the International Information Center of the IChO) and served as recommendations for the next International Jury session and organizers.

31ST IChO

THAILAND, Bangkok

July 3 – 12, 1999

- Ten days
- 47 teams, 184 participants
- New countries in the competition: Brazil, India, Kazakhstan. Cuba and Kuwait back again.
- The final versions of the competition tasks were judged and approved in two parallel sessions of the International Jury.
- The recommendations of the 7th International Workshop were accepted by the organizer and applied in the organization of the 31st ICHO.
- Business session: The Regulations of the IChO finally accepted by the International Jury in full extent.

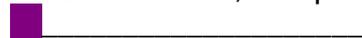
More details on the following eighteen International Chemistry Olympiads are available in the IChO Archive Sheets No 32 - 49.

32ND IChO

DENMARK, Copenhagen

July 2 – 11, 2000

- 54 countries, 208 participants



33RD IChO

INDIA, Mumbai

July 6 – 15, 2001

- 54 countries, 213 participants



34TH IChO

NETHERLANDS, Groningen

July 5 – 14, 2002

- 57 countries, 225 participants



35TH IChO

GREECE, Athen

July 5 – 14, 2003

- 59 countries, 232 participants



36TH IChO

GERMANY, Kiel

July 18 – 27, 2004

- 61 countries, 233 participants



37TH IChO

CHINESE TAIPEI, Taipei,
July 16 – 25, 2005

- 60 countries, 225 participants
-

38TH IChO

REPUBLIC OF KOREA, Gyeongsan
July 2 – 11, 2006

- 67 countries, 254 participants
-

39TH IChO

RUSSIAN FEDERATION, Moscow
July 15 – 24, 2007

- 67 countries, 256 participants
-

40TH IChO

HUNGARY, Budapest
July 12 – 21, 2008

- 66 countries, 257 participants
-

41ST IChO

GREAT BRITAIN, Cambridge and Oxford
July 18 – 27, 2009

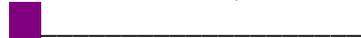
- 64 countries, 250 participants
-

42ND IChO

JAPAN, Tokyo

July 19 – 28, 2010

- 68 countries, 267 competitors

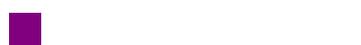


43RD IChO

TURKEY, Ankara

July 9 – 18, 2011

- 70 countries, 273 competitors

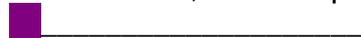


44TH IChO

USA, Washington

July 21– 30, 2012

- 72 teams, 283 competitors



45TH IChO

RUSSIAN FEDERATION, Moscow

July 15 – 24, 2013

- 73 teams, 291 competitors



46TH IChO

VIETNAM, Hanoi

July 21 – 29, 2014

- 75 teams, 291 competitors



47TH IChO

AZERBAIJAN, Baku
July 20 – 29, 2015

- 74 teams, 290 competitors



48TH IChO

GEORGIA, Tbilisi
July 23rd – August 1st, 2016

- 73 countries, 264 competitors



49TH IChO

THAILAND, Nakhon Pathom
July 6 – 15, 2017

- 76 countries, 296 competitors

