Examiners' Report on Paper A/1990 (Chemistry)

Candidates were expected to realise that in the case of this Paper the most appropriate way for seeking a comprehensive protection was to start with claims directed to the aqueous colloidal solution which the client intended to use for the activating treatment of non-conducting substrates.

Such a main independent claim was expected to cover a stabilized aqueous colloidal solution of hydrated oxides of nickel or cobalt or a mixture of hydrated oxides of copper, nickel and/or cobalt.

A hydrated copper oxide containing aqueous colloidal solution had to be excluded from the claim, since such a solution was already disclosed in document II.

A number of candidates had noted that in view of document II there was a necessity for some kind of restriction in the claims. But, when taking into account the prior art of document II, many candidates unnecessarily limited the independent claim to aqueous colloidal solutions containing, apart from hydrated oxides of copper, nickel and cobalt, also hydrated oxides of antimony. The client, however, had regarded the inclusion of hydrated antimony oxide as merely being preferred, not as mandatory.

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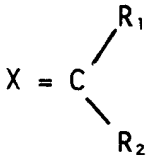
Only few candidates realized that, since the colloidal solutions app... to be novel a claim could also properly be directed to a process for t... preparation of the said colloidal solution, even though such process was known per se from document II.

Most candidates had either an independent or a subsidiary claim or a series of claims directed to a process for the activation of a non-conducting substrate and/or the production of a metallized non-conducting substrate by electroless plating.

A great number of candidates, however, had included in such claims some unnecessary restrictions, such as:

- exluding the use of hydrated copper oxide, while the use thereof for activating dielectric substrates was not known,
- mentioning the "mandatory presence" of hydrated antimony oxide
- mentioning the presence of a reducing agent, while a reducing agent could only be included when a compound of formula



was being used as a stabiliser.

Claims of this sort attracted only few marks.

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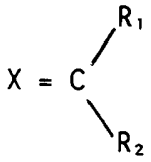
Some candidates, obviously eager to seek a particularly broad scope of protection, drafted a first independent claim covering the activation or metallisation of non-conducting substrates with an aqueous colloidal solution of hydrated oxides of unspecified metals or even of salts of metals in general. Such broad claims were not supported by the description.

Almost all candidates had drafted a series of claims depending either on a "colloidal solution claim" or, on a "metallisation process claim", the latter being the more frequent case. These dependent claims, as expected, were directed, more particularly, to the following subject matter:

- the concentration range of antimony oxide
- the use of a compound of the formula



  as a stabiliser
- the concentration range of the said component
- the addition of a reducing agent
- the concentration range of the reducing agent
- the use of copper oxide for the activating treatment
- the preferred use of the aforementioned compound, wherein X represents S
- the activation process using a compound wherein X = S as a stabiliser and 1,9 - 2,6 g/l of a reducing agent, which allows the rinsing step and the separate developer bath to be omitted, so that the activation can be carried out in a single step.

Some candidates failed to direct a claim to the single step activa process, probably because they had not noted that a substantial advantage resulted therefrom. The omission of such an important claim was regarded as a serious defect.

Only a very few candidates had a final claim directed to metallised products "obtainable" by the process claimed. Such a claim was essentially the broadest permissable claim to the product (cf. Guidelines part C, chapter III 4.7b). Also rather few candidates directed a claim to printed circuits which, after all, had the special attention of the client. Failing to draft such claims resulted in a loss of points.

Marks were also lost by candidates who failed to properly discuss in the introduction of the description the documents referred to in client's letter as prior art and by those who omitted to define the technical problem which the applicant intended to solve by means of the invention.

EXAMINATION COMMITTEE I

Candidate´s answer-paper No. . . .

Report by examiner No. . . . . .

FORM, for use by individual examiners, in PAPER A (Chemistry)

Schedule of marks

Category	Maximum possible	Individual marks awarded	Where **grades** awarded are not identical	
			Revision of marks/grade (if any)	Remarks*
Claims: - Scope of protection = independent claim or claims	22			
= dependent claims	15			
- formal requirements	3			
Description: (Title, field and prior art, problem and/or discovery, solution and advantages)	8			
TOTAL	48			
CORRESPONDING GRADE				

Translation of marks into grades:

0 - 11	Grade 7
12 - 17	Grade 6
18 - 23	Grade 5
24 - 29	Grade 4
30 - 35	Grade 3
36 - 41	Grade 2
42 - 48	Grade 1

* to be filled in if both the following requirements are fulfilled:

(a) the grades awarded by the two individual examiners before their discussion differ by two grades or more;

(b) the marks awarded by at least one of the two individual examiners have been changed during their discussion.

If remarks are to be filled in, they should briefly explain **why** the examiner has changed his marks.