

## EUROPEAN QUALIFYING EXAMINATION 1998

### PAPER D - PART II

#### THIS PAPER COMPRISES:

- \* LEGAL ADVICE 98/DII/E/1-5
  
- \* ANNEX - CALENDARS FOR 1997 AND 1998 WITH  
INDICATION OF THE DAYS ON WHICH AT LEAST ONE  
OF THE EPO FILING OFFICES IS NOT OPEN FOR  
THE RECEIPT OF DOCUMENTS 98/DII/E/6-7

**You receive the following letter from a new client, Knowhow University in the United States.**

Dear Mr Bright,

The University would like you to act as European representative of our employee Dr Eamer and handle the international search and examination of his PCT applications before the European Patent Office, to handle the regional phase of such applications before the European Patent Office, and to file European patent applications where necessary. Dr Eamer has confirmed the handling of the case in his name.

The inventions to be placed in your care concern superconductive materials and magnets and are of immense commercial value; it is essential to obtain patent protection in Europe for the inventions to fulfil obligations to a licensee.

In early 1997 Dr Eamer, a physics professor in our superconductivity research group, and a world famous expert in magnet technology, developed the first, and so far only, method of making room temperature superconductors.

The room temperature superconductors invented by Dr Eamer were crystalline materials and did not appear to have sufficient strength to be made into wire, but tapes could be made. A further drawback to these superconductors was that they were sensitive to air oxidation and so had to be kept under an inert atmosphere (such as nitrogen).

Dr Eamer also found that, when tape made from the superconductor was used to form the windings of a novel magnet structure he had developed, magnetic fields of unprecedented strength could be generated. Dr Eamer wanted to be able to make wires of superconductor, as this would enable even higher fields to be obtained using the same novel structure of magnet.

Dr Eamer's contract of employment specifies that we, Knowhow University, are the owner of all intellectual property rights generated while he is employed by us; however, if we choose not to seek protection for such rights, Dr Eamer is free to do so, and in such circumstances he would own the rights. Dr Eamer informed the University of his findings through the head of the superconductivity research group, Professor Sceptic (who was entitled to make patenting decisions on behalf of the University). Professor Sceptic did not believe Dr Eamer's report. Professor Sceptic informed Dr Eamer that he could file any applications he wished in his own name. Accordingly, Dr Eamer filed two US applications, US-SUPER and US-MAG.

Application US-SUPER describes and claims a method of making room temperature superconductors from a range of chemical compositions and gives examples of, and claims, specific materials that are room temperature superconductors. The method and the materials claimed are novel and inventive.

Application US-MAG, which makes no reference to US-SUPER, describes and claims the new structure of magnet incorporating, as an essential integer, room temperature superconductors. Application US-MAG gives no indication of how such materials are made.

US-SUPER has a filing date of 1 May 1997 and US-MAG has a filing date of 30 April 1997.

Our Physics Department has a computer network with a restricted access discussion page for the superconductivity research group. The group had been informed by the University Computer Department that it was not feasible for persons to have access to the page except if authorised and using appropriate allocated passwords. On 15 August 1997 Professor Sceptic posted an article in the discussion page giving full details of the room temperature superconductor developed by Dr Eamer and the method of making the superconductor. The article gave, in strong language, Professor Sceptic's reasons for not believing the results obtained. No mention was made of the magnet structure. Professor Sceptic did not consult Dr Eamer before posting the article.

Dr Eamer did not post a reply article but spoke personally to Professor Sceptic and demonstrated the room temperature superconductor. Professor Sceptic was convinced and apologised both personally and

in a statement on the discussion page. Professor Sceptic mentioned in private to Dr Eamer that it was common general knowledge that crystal structure was important in determining whether or not a material was a superconductor. He suggested that Dr Eamer should investigate the crystal structure of his materials to see whether other materials of similar crystal structure could be made.

Later that year our computer department decided, without consultation with Dr Eamer or the University authorities, that all the University's computer discussion pages should be opened to public inspection on the Internet. From 1 November 1997 the superconductivity research group discussion pages were freely accessible from any computer in the world with access to the Internet.

At about this time the Board of the University was informed by Professor Sceptic of Dr Eamer's invention and became aware of the potential value of room temperature superconductors and high power magnets. An agreement was signed with Dr Eamer that the University would have an exclusive licence under the patents with the right to grant sub-licences. The University would have full control of the prosecution of the patents and would pay for US-SUPER, US-MAG and for corresponding applications abroad. Any improvements to the magnet and superconductor would be dealt with in the same way. Accordingly PCT-SUPER and PCT-MAG were filed on 30 January 1998 in Dr Eamer's name designating all countries and nominating the European Patent Office as International Searching Authority. PCT-SUPER claimed priority of, and was identical to, US-SUPER. PCT-MAG claimed priority of, and was identical to, US-MAG.

**A. Please assess the patentability and status of PCT-SUPER and PCT-MAG and advise us as to what actions we need to take during 1998 to maintain the applications in good order before the European Patent Office.**

Meanwhile, Dr Eamer's studies were progressing on the lines suggested by Professor Sceptic and he had found that a class of room temperature superconductors could be made falling outside the scope of US-SUPER but having the same crystal structure. In attempting to maintain superconductivity of the superconductors at still higher temperature Dr Eamer found, unexpectedly, that one group of these

superconductors is resistant to oxidation, unlike the superconductors of US-SUPER. According to US3, filed on 12 March 1998, US3 was filed as a continuation-in-part to US-SUPER. US3 describes and claims superconductors with specified crystal structure that encompass the superconductors of US-SUPER, and all of the newly found superconductors. There are also claims directed to the oxidation resistant class of superconductors.

**B. Please advise as to the patentability of a future European application claiming priority of US3, and as to when such an application should be filed.**

On 23 March 1998 Dr Eamer attended a seminar on superconductivity and was shocked to see a presentation referring to his work and quoting Dr Sceptic's article on Knowhow University Physics Department's discussion page. Dr Eamer had not been aware that the article had been freely accessible on the Internet.

The paper was from a French company, Filarus S.A., and disclosed, for the first time, a novel and inventive method for making wires from the superconductors of US-SUPER. The paper also repeated in full the method for making room temperature superconductors developed by Dr Eamer, citing in support the Internet disclosure. In a footnote the paper states that a French patent application FR1 was filed on 15 January 1998.

**C. Please advise what effect the invention of FR1 could have on the patenting and exploitation of the inventions of PCT-SUPER, PCT-MAG, and US3.**

On his return from the seminar Dr Eamer received from a watching service a copy of a granted US patent (US4) which was filed on 3 February 1997 without a claim to priority and issued on

30 January 1998. This patent, from Dr Ghosh of Bombay University, describes the identical novel structure of magnet disclosed in US-MAG and states that if room temperature superconductors were available high magnetic fields could be obtained.

**D. Please advise what effect the invention of US4 could have on the patenting and exploitation of the inventions of PCT-SUPER, PCT-MAG, and US3.**

**E. We look forward to receiving your early advice, and in particular as to whether you see any way of improving our patenting position.**

Yours truly,

Alec Spittle

Secretary to the Board of Knowhow University

PS - By the way, as part of the regular "housekeeping" of the superconductivity research group Professor Sceptic's article was erased from the Internet discussion page on the 14 January 1998.

# 1997

## INFORMATION FROM THE EUROPEAN PATENT OFFICE

Notice from the President of the European Patent Office dated 2 October 1996 concerning the days on which EPO filing offices are closed in 1997

1. Under Rule 85(1) EPC time limits expiring on a day on which at least one of the filing offices of the EPO is not open for receipt of documents (closing days) are extended until the first day thereafter on which all the filing offices are open for receipt of documents and on which ordinary mail is delivered.

2. The EPO's filing offices in Munich, The Hague and Berlin will be closed for the receipt of documents on every Saturday and Sunday. The other closing days in 1997 are listed below.

<b>JANUARY</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>FEBRUARY</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	<b>MARCH</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
<b>APRIL</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>MAY</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>JUNE</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
<b>JULY</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>AUGUST</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>SEPTEMBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
<b>OCTOBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>NOVEMBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>DECEMBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Tage/Days/Jours		München Munich	Den Haag The Hague La Haye	Berlin
Neujahr - New Year's Day - Nouvel An	01.01.1997	x	x	x
Heilige Drei Könige - Epiphany - Epiphanie	06.01.1997	x		
Karfreitag - Good Friday - Vendredi Saint	28.03.1997	x	x	x
Ostermontag - Easter Monday - Lundi de Pâques	31.03.1997	x	x	x
Nationalfeiertag - National Holiday - Fête National	30.04.1997		x	
Maifeiertag - May Day - Fête du travail	01.05.1997	x	x	x
Tag der Befreiung - Liberation Day - Journée de la Libération	05.05.1997		x	
Christi Himmelfahrt - Ascension Day - Ascension	08.05.1997	x	x	x
Pfingstmontag - Whit Monday - Lundi de Pentecôte	19.05.1997	x	x	x
Fronleichnam - Corpus Christi - Fête-Dieu	29.05.1997	x		
Mariä Himmelfahrt - Assumption Day - Assomption	15.08.1997	x	x	
Tag der Deutschen Einheit - Day of German Unity - Fête Nationale	03.10.1997	x		x
Heiliger Abend - Christmas Eve - Veille de Noël	24.12.1997	x	x	x
1. Weihnachtstag - Christmas Day - Noël	25.12.1997	x	x	x
2. Weihnachtstag - Boxing Day - Lendemain de Noël	26.12.1997	x	x	x
Silvester - New Year's Eve - Saint-Sylvestre	31.12.1997	x	x	x

# 1998

## INFORMATION FROM THE EUROPEAN PATENT OFFICE

Notice from the President of the European Patent Office dated 6 October 1997 concerning the days on which EPO filing offices are closed in 1998

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Heilige Drei Könige - Epiphany - Epiphanie	06.01.1998	x		
Karfreitag - Good Friday - Vendredi Saint	10.04.1998	x	x	x
Ostermontag - Easter Monday - Lundi de Pâques	13.04.1998	x	x	x
Nationalfeiertag - National Holiday - Fête National	30.04.1998		x	
Maiifeiertag - May Day - Fête du travail	01.05.1998	x	x	x
Tag der Befreiung - Liberation Day - Journée de la Libération	05.05.1998		x	
Christi Himmelfahrt - Ascension Day - Ascension	21.05.1998	x	x	x
Pfingstmontag - Whit Monday - Lundi de Pentecôte	01.06.1998	x	x	x
Fronleichnam - Corpus Christi - Fête-Dieu	11.06.1998	x		
Heiliger Abend - Christmas Eve - Veille de Noël	24.12.1998	x	x	x
1. Weihnachtstag - Christmas Day - Noël	25.12.1998	x	x	x
Silvester - New Year's Eve - Saint-Sylvestre	31.12.1998	x	x	x