



ISTITUTO NAZIONALE DI ASTROFISICA  
NATIONAL INSTITUTE FOR ASTROPHYSICS

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## OSSERVATORIO ASTROFISICO DI CATANIA

D.D. n. 183

**Call for applications concerning a public competition, with qualifications and possibly integrated by an interview, for the awarding of one research fellowship post-doc entitled: “Photochemistry on the space station”**

THE DIRECTOR

In accordance with Law n. 138/2003, concerning the institution of Istituto Nazionale di Astrofisica (INAF);

In accordance with Law n. 213/2009, concerning the Italian research public institutions;

In accordance with Law dated 30 December 2010, n. 240, of which art. 22 in particular, concerning the award of research grants for conducting of research activities;

In accordance with the Ministerial Decree 09.03.2011, n. 102, recorded by the Court of Audit on 13 May 2011;

In accordance with Law dated 12 November 2011, n. 183, of which art. 15, paragraph 1 in particular;

In accordance with the INAF Administrative Council resolution of 7 March 2011;

In accordance with the INAF Administrative Council resolution n. 44 of 21 June 2012;

In accordance with the Regulations regarding the assignation of research grants approved by INAF Administrative Council on 22 June 2011 with resolution n. 44;

In accordance with the request of Dr Giuseppe Baratta, scientific leader of the project “Photochemistry on the space station (PSS)”, Grant Agreement *ASI n. 2013-073-R.0*;

Considers it appropriate to emanate a public call based on qualifications and possibly interview for the awarding of n. 1 research grant for research activities at the INAF – Osservatorio Astrofisico di Catania;

Ascertained the financial coverage of the fellowship is granted within CRA 1.05.04.04, cap. 1.05.08, CUP F68C13000150005 of the year 2014, for a budget of € 33.361,16,

### DECREES

#### Art. 1 –Research project

A public selection based on qualifications, possibly integrated by an interview, is open to award one research fellowship for one year, category Post-Doc type A, funded under the project “*Photochemistry on the space station (PSS)*” (hereinafter referred to as “PSS”), Grant Agreement *ASI n. 2013-073-R.0*. Scientific Responsible is Dr Giuseppe Baratta (email: [giuseppe.baratta@oact.inaf.it](mailto:giuseppe.baratta@oact.inaf.it)).

The aim of research grants is to allow qualified candidates, with adequate professional scientific *curriculum*, to conduct research at the INAF – Osservatorio Astrofisico di Catania in the theme of that project.

The awarded fellow is expected to carry out the following activities:

Analysis of residues obtained in the Laboratory for Experimental Astrophysics after ion irradiation of simple ice molecules containing C, N, and O. These residues contain triple CN bonds that are



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considered relevant to pre-biotic chemistry. They will be exposed to solar radiation on board of the International Space Station (ISS).

In particular the awarded fellow will be on charge of:

- Analysis of the samples, by infrared spectroscopy, after the exposure to space and comparison with samples not exposed;
- Laboratory experiments that, by using an UV lamp, are aimed at simulate the solar irradiation of the samples;
- Analysis of the results and preparation of manuscripts to be submitted to peer reviewed journals;
- Dissemination of the results by participating to scientific meetings and/or to outreach events.

### **Art. 2 – Requirements**

The call is equally destined to men and women of any nationality who possess a degree pursuant to second period below, accompanied by adequate professional scientific experience in conducting research activities. The educational qualification has to concern the research theme.

In order to participate in the selection, applicants must possess, on penalty of exclusion, the following requirement:

- PhD degree in Astronomy or Physics or Chemistry or Earth Sciences or Engineering awarded by an Italian university or by a foreign university, assessed by the Selection Committee as equivalent to an Italian PhD degree in Astronomy or Physics or Chemistry or Earth Sciences or Engineering;

**or**

- Degree in Astronomy or Physics or Chemistry or Earth Sciences or Engineering which would formally entitle for the admission to a doctorate, awarded by an Italian university or by a foreign university, assessed by the Selection Committee as equivalent to an Italian degree in Astronomy or Physics or Chemistry or Earth Sciences or Engineering which would formally entitle for the admission to a doctorate, **together with at least three years of documented experience in scientific or technological activities.**

Candidates must be in possession of the required qualifications at the application deadline.

The following knowledge, skills and experience will be considered as preferential qualifications:

- Experience with complex laboratory apparatuses with particular emphasis to ion bombardment, electron or UV irradiation;
- Knowledge of spectroscopic techniques, particularly IR;
- Familiarity with the physical-chemical properties of solid materials in space;
- Team working and communications skills.



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**Art. 3 – Application procedure**

Applications must be submitted, in a single envelope, in Italian or in English, possibly with the attached forms (Annexes 1, and 2 for EU citizens), by regular/registered mail with acknowledgment of receipt to the following address:

Director

INAF-Osservatorio Astrofisico di Catania

Via Santa Sofia 78

95123 Catania - Italia

Applications must be received at the above address within **13:00 (local time) on Wednesday 15 October 2014**. Late delivery will not be considered.

Applications which are not consistent with the indications of the attached forms (Annexes 1, and 2 for EU citizens), available at

[http://www.oact.inaf.it/weboac/concorsi\\_it.html#contratti](http://www.oact.inaf.it/weboac/concorsi_it.html#contratti) a tempo determinato, or without the applicant's signatures will be excluded from the selection procedure.

Outside the envelope the candidate must write:

- a) the candidate's personal details;
- b) correspondence details for the purposes of the application;
- c) details of the competition for which the candidate intends to apply: "Application for Post-Doc position at INAF – Osservatorio Astrofisico di Catania PSS".

Aware that false declarations are punishable by law and that the Administration will carry out random checks on their accuracy, the applicant must state clearly and precisely in the application, under her/his own responsibility:

- name(s) and surname, date and place of birth, nationality, place of residence and address for correspondence and email address if available or PEC;
- the exact denomination of the competition in which the candidate intends to take part: research grant entitled: "**Photochemistry on the space station PSS**";
- that s/he satisfies all the requirements described in article 2 of this Call;
- that s/he is aware of and is not ineligible under any of the restrictions described in article 4 of this Call;
- details of any research grants previously awarded;
- titles of any other qualifications awarded (e.g. specialization diplomas, attendance certificates for post-graduate specialization courses held in Italy or abroad, documented research, under contract, conducted at public or private bodies, scholarships or appointments, both in Italy and abroad);
- that s/he will communicate promptly any changes in the positions referred to in the application as well as changes to the residence and contact details;
- that s/he has read and understood the regulations governing the call for applications.

The lack of any of the above mentioned declarations will determine the exclusion from the selection procedure for incomplete application.

The administration office cannot be held responsible for post not being delivered due to the candidate's providing an incorrect residence or correspondence address or if any changes to these addresses are not



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communicated promptly, for any postal or communications delays or third party delays due to fortuitous events or force majeure.

For selection purposes the applicants:

- EU citizens shall directly state any academic qualifications in the application forms (Annexes 1 and 2)
- non-EU citizens residing outside Italy, **together with Annex 1**, must produce originals or suitably certified copies of academic qualifications obtained outside Italy, together with a declaration of value, certified, translated and legally validated, complete with an indication of the examinations taken, relative marks and course duration. The declaration of value is issued by the competent Italian diplomatic representatives in the country where the institution that made the award is based.

Italian and EU citizens, in order to participate to the present call, must declare, to the fullest extent of applicable laws, the qualifications required for participating in the competition and all the documents deemed relevant for appraisal. In the personal sworn declaration, the candidate must provide details of each document submitted for appraisal to the examining board that will enable them to reach a decision as to the validity of the qualification for the sole purposes of participation in the selection procedure and to assess the veracity of the personal sworn declaration. Pursuant to Art. 40, comma 1, D.P.R. 445/2000, no original certificates need to be attached to the application document; only a copy declared to be authentic need be supplied. Any certificates issued by public bodies will not be considered in the candidate selection process.

Only certificates issued by private individuals and/or private bodies may be supplied in their original form, as authenticated copies or as a copy declared to be authentic.

Citizens from non-EU states who are legally resident in Italy, pursuant to the laws currently in force, should present the documents required for participation in the competition and all other qualifications candidates deem opportune for appraisal as originals or photocopies, translated into Italian or English. Candidates may only provide a self-certification declaration of circumstances, discernible facts and personal qualities that are contained in Italian public records.

Citizens from non-EU states who are not legally resident in Italy, must produce originals or suitably certified copies of academic qualifications obtained outside Italy, translated and legally validated, together with a declaration of value, certified, translated and legally validated, complete with an indication of the examinations taken, relative marks and course duration.

The declaration of value is issued by the competent Italian diplomatic representatives in the country where the institution that made the award is based.

**If the qualification has not been deemed valid for Italian law**, the applicants must request the validity for the sole purposes of participation in the present competition adding:

- 1) for Italian and EU citizens: personal sworn declaration pursuant to D.P.R. 28/12/2000 n. 445 and successive modifications, together with the university qualifications awarded complete with a list of examinations taken, the relative marks and duration of the course;
- 2) for non-EU citizens: translations into Italian or English of the qualifications awarded with a list of the examinations taken, the relative marks and the duration of the course. The declaration of value is



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issued by the competent Italian diplomatic representatives in the country where the institution that made the award is based.

The following documents have to be submitted:

- Annex 1 “Application form” signed and dated;
- Only for non-EU citizens residing outside Italy: originals or suitably certified copies of academic qualifications obtained outside Italy, together with a declaration of value, certified, translated and legally validated, complete with an indication of the examinations taken, relative marks and course duration;
- **Only if the qualification has not been deemed valid for Italian law**: request of validity for the sole purposes of participation in the competition together with mentioned declarations;
- Annex 2 “Self-declaration” (only for EU citizens);
- “Curriculum vitae”, **signed and dated** by the applicant, providing evidence of possession of the titles and the skills required to carry out the research and including a list, if applicable, of grants and fellowships held in the past and a statement of research interests;
- **copy of a valid identity document (ID card or passport)**;
- list of publications, including all authors;
- any other qualification, working task, research activity for public and private institutions and publications that the applicant deems appropriate to submit.

Applicants should also arrange for **two signed letters of reference** by scientists familiar with her/his work who shall send them directly and within the deadline of **15 October 2014** by e-mail to the following address: **pss\_reference\_letter@oact.inaf.it** with subject: **name of the candidate\_name of the referee**.

**The selection committee will take into account the evaluation given by the referees in the selection procedure.**

Applicants are provisionally admitted for selection with reservation and may – at any time – be notified of exclusion from the selection procedure for the following reasons:

- submission of the application after the deadline;
- failure to complete and sign the application form or ( for non-EU citizens residing outside Italy only) to produce originals or suitably copies of academic qualifications obtained outside Italy, together with a declaration of value, certified as authentic, translated and legally validated, by diplomatic office;
- failure to sign the application form, the declarations and the curriculum vitae;
- lack of the copy of a valid identity document;
- lack of the established requirements, indicated in article 2.

Should the reasons for exclusion be ascertained after completion of the selection procedure the applicant will lose any right deriving from participation in the selection procedure; similar loss will be applied to applicants providing any false statement or document.

These decisions of exclusion will be communicated to the interested party via recorded delivery.



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INAF accepts no responsibility for lost applications or documents where this is due to the applicant having provided incorrect contact details or having failed or delayed in notifying any changes to these details.

### **Art. 4 – Ineligibility and incompatibility with other funding**

Full professors, associate professors and “ricercatori” in Italian universities and employees of INAF or Italian University or research public institutions are all excluded from entering the competition.

Research grants may be assigned to personnel at public institutions other than those listed in the previous period provided they are on leave and do not receive a grant from their place of work for the entire period of the contract referred to in article 10 of this call for applications.

The grant cannot be held at the same time with attendance at academic courses as those that formally give access to a doctorate, as well as with attendance at PhD courses with fellowship or master.

The grant cannot be held contemporarily with other fellowships of whatever kind, except those awarded with the aim of integrating the training or research activity of the fellowship holder through a period spent abroad.

Aggregation of income from working activities, also part-time, carried out continuously is not accepted. Instead, limited self-employed occasional work is compatible with the grant, only if this is not prejudicial to the research activity carried out for INAF. This must be authorized in advance by the Director of INAF – Osservatorio Astrofisico di Catania.

Retired persons are not eligible for Research fellowship.

Also excluded from participation is any person who has carried out Research fellowships under article 22 of Italian Law 240/2010 for a total period exceeding four years, including extensions, but excluding the periods in which the grant has been held in coincidence with doctoral studies up to the maximum legal time limit of the course and excluding periods of maternity leave or sick leave, in accordance with current legislation.

Research grants cannot be awarded to those who have signed contracts, pursuant to Art. 22 (Research grants) and Art. 24 (Temporary research positions) of Law n. 240 dated 30 December 2010, with other universities and/or other Italian public institutions, whose duration together with that of the contract outlined in this call for applications, exceeds 12 years, even when non-continuous, as set out in Art. 22, comma 9 of the cited Law; maternity leave and sick leave are not taken into consideration when calculating the time limit.

### **Art. 5 – Duration of the Research fellowship**

The Research fellowship is expected to begin on **1 December 2014** and will end on 30 November 2015. The exact initial date could be reasonably delayed if requested by the candidate and if requested by the completion of administrative procedures and/or for the cases mentioned in the art. 10 of this Call. An extension of 1 year may be possible depending on performance (positive evaluation of the research) and on funding availability.



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In accordance with Italian Law n. 240/2010 the duration of the fellowship, inclusive of possible renewal, will not exceed four years, including other Research fellowships with University or public institutions, and excluding the periods in which the grant has been held in coincidence with doctoral studies up to the maximum legal time limit of the course and excluding periods of maternity leave or sick leave, in accordance with current legislation.

### **Art. 6 – Host Institution**

The fellow will carry out the research at INAF – Osservatorio Astrofisico di Catania.

### **Art. 7 – Salary amount**

The gross annual salary will be **28.000 Euro**. This amount is net of burdens to be charged to INAF-Osservatorio Astrofisico di Catania, social charges, and includes the social security tax charged to the fellow and will be paid in deferred monthly instalments. Travel expenses for mobility are not included and will be covered by INAF-Osservatorio Astrofisico di Catania on availability.

Italian tax and social security rules will be applied. Grants for research activities will be subject to: article 4 of Law 13 August 1984, n. 476 (concerning tax); article 2, paragraph 26 and successive clauses, of Law 8 August 1995 n. 335 and successive modifications (regarding social security); Labour and Social Security Ministerial decree of 12 July 2007, published in the G.U. n. 247 dated 23 October 2007 (regarding obligatory suspension from work during maternity); art. 1, paragraph 78, of Law 27 December 2006, n. 296, and successive modifications (regarding sick leave). During the period of obligatory maternity leave the allowance paid by INPS (Italian National Institute for Social Security) is supplemented by INAF up to the total amount of the grant. The period of obligatory maternity leave will not contribute to the duration of the grant foreseen by the contract.

The fellow will be requested to have a personal accidents insurance for the duration of the fellowship. The public liability insurance coverage is on charge of INAF, but this insurance doesn't cover candidate's responsibility towards INAF.

The candidate shall not be allowed to receive, for the activities carried out in the frame of the project, other incomes than those received from the INAF.

### **Art. 8 – Selection Committee and selection procedure**

The selection will be performed by a Selection Committee appointed by the Director of INAF - Osservatorio Astrofisico di Catania, once the deadline for the presentation of applications for selection has passed. The Selection Committee is composed of three members, including the scientist in charge of the project Dr Giuseppe Baratta, and a secretary. Examining board members are not remunerated.

The selection is based on qualifications possibly integrated by an interview in English or in Italian. The Selection Committee can establish a short list of the eligible applicants to be interviewed, on the basis of qualifications and documented experience in scientific or technological activities on the specific subject of the research fellowship. All the stages of the selection procedure (e.g. meetings of the Selection Committee, interviews and so on) can be performed also using electronic devices for the communications.

The evaluation of qualifications must, in any case, take place before the interviews begin.



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If necessary, applicants selected for the interview will be summoned with 15 days notice by e-mail containing the individual score for qualifications.

The total ranking score is 100 points, (of which 70 points is the maximum score for qualifications and 30 points is the maximum score for the possibly interview).

The examining board subdivide the 70 points reserved to qualifications according to the following criteria:

20 for scientific-professional curriculum (e.g. specialization diplomas, attendance certificates for post-graduate specialization courses) subdivided according to specific criteria defined before the applications are assessed;

20 for experience (e.g. documented research, under contract, fellowships or research grants, conducted at public or private bodies, evaluation of letters of references) subdivided according to specific criteria defined before the applications are assessed;

30 for publications, assigned according to specific criteria defined before the applications are assessed.

In case of an interview, that will focus on candidates' scientific output and can be also done using electronic devices. In any case, no reimbursement will be recognized for expenses for the interview.

At the end of the selection procedure the Selection Committee will draw up the ranked list, in descending order, based on the total scores obtained by each candidate in the evaluation of qualifications and in the possibly interview. In instances where two or more candidates have the same score, the candidate with PhD degree will prevail and then the youngest candidate.

The approval decree of the validity of the selection procedure and the ranked list will be published on the following website: [http://www.oact.inaf.it/weboac/concorsi\\_it.html#contratti](http://www.oact.inaf.it/weboac/concorsi_it.html#contratti) a tempo determinato.

The candidate who is placed in the top position of the ranking list will be considered as winner, subject to confirmation that s/he meet the requirements for participating in the selection procedure.

A position on a competition winners' ranking list does not imply any priority for future selection procedures.

### **Art. 9 – Awarding of the fellowship**

The highest ranked candidate will receive written notification of award of the research fellowship.

Within 10 days from receipt of the formal notification of the award she/he must provide a formal declaration of acceptance of the research grant. The declaration will also state that she/he is not subject to any of the exclusion conditions listed in article 4 of this Call.

If the candidate does not provide the declaration of acceptance within a time limit of 10 days, she/he will surrender his/her entitlement to the research fellowship and it can be awarded to the next ranked candidate, in strict ranking list order.

Under no circumstances the signing of the contract starts a subordinate employment relationship or ensures any rights to access to permanent INAF staff positions.





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### **Art. 10 – Fellowship obligations**

Research grant for conducting of research activities is awarded under private law contract in which contractual rights and obligations are stated.

The fellow will be requested to have, before the beginning of research activity, a personal accidents insurance for the entire duration of the fellowship.

The contract will be stipulated within one or two months of acceptance. This type of contract does not constitute, in any way, a wage labour relationship.

Successful candidate will establish a participatory relationship with the INAF focused on the conduction of research activities. This relationship does not form part of the institutional structure of INAF and the role of INAF researchers and cannot be considered useful in terms of gaining employment in Italian universities and research institutes.

Research grant, without exception, become effective from the first day of the month that succeeds that in which the contract was stipulated.

Deferments from this start date will only be authorized for successful candidate who can document that s/he was pregnant, recovering from giving birth or suffering from a serious illness on the date s/he was notified of the awarding of the research grant.

Candidate who is allowed to defer the beginning of her/his research activities must present to the Administration office a medical certificate in support of her/his claim for deferral. The candidate awarded the research grant must begin her/his research activities on the first day of the month that succeeds the end of the deferral period.

The successful candidate who does not begin her/his research within the established deadline will forfeit her/his right to a grant.

The holder of the fellowship:

- will start the research activity at the date due as the contract at INAF – Osservatorio Astrofisico di Catania, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF – Osservatorio Astrofisico di Catania must be timely informed;
- will carry out her/his research activities under the supervision of the scientist in charge of the PSS project, Dr Giuseppe Baratta who will also monitor the fellow's progress;
- is required to issue an activity reports every six months. The activity reports will be subject to approval from the scientist in charge of the project and will be transmitted to the Director of INAF - Osservatorio Astrofisico di Catania. Approval failing, duly reasoned by the scientist in charge, will give INAF - Osservatorio Astrofisico di Catania the right to terminate the contract;
- is required to send a written note in case of withdrawal, with at least 30 days notice, otherwise the INAF - Osservatorio Astrofisico di Catania is entitled to retain or request the reimbursement of the salary amount corresponding to the notice time-span she/he has failed to send.

The holder of the fellowship who does not carry out her/his research activity regularly without producing justified reasons or lacks repeatedly to fulfil requirements or, according to the evaluation of the local coordinator of the PSS activities, Dr Giuseppe Baratta, eventually shows evident lack of skills at the planned research activities, will incur the termination of the contract.



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Temporary suspensions of the research fellowship are due in case of obligatory maternity leave or in case of illness which lasts longer than one month or to any other serious reason. The reasons for suspending the research fellowship must be proved and certified, and promptly sent to the Director of INAF – Osservatorio Astrofisico di Catania.

The contract between the INAF and the research fellow will be terminated, without notice, in the following cases:

- a) unjustified delay to commencing research activities;
- b) violating the current incompatibility regulations concerning the awarding of research grants for research activities;
- c) a negative evaluation of the research activities by the Scientific Responsible: Dr Baratta may communicate serious shortcomings, in writing, to the research fellow. The Director may decide to terminate the contract if the research fellow's justifications are deemed unsatisfactory.

### **Art. 11 – Responsible of the Procedure**

The Administrative Responsible of this Call procedure is Dr Marina Messineo (email: [mmes@oact.inaf.it](mailto:mmes@oact.inaf.it)).

**For** further **scientific** information about the position and planned activities, contact the Scientific Responsible, Dr Giuseppe Baratta (email: [giuseppe.baratta@oact.inaf.it](mailto:giuseppe.baratta@oact.inaf.it)).

### **Art. 12 Return of certificates**

Candidates should arrange, at their own expenses, for their degree certificates and published works presented during the selection process to be returned once three months have passed since the publication of the ranking list.

Once six months have passed since the publication of the ranking list, the Observatory cannot in any way be held responsible for the documents and published works presented by the candidates during the selection process.

### **Art. 13 – Applicable regulation**

The INAF – Osservatorio Astrofisico di Catania shall abide by provisions in force promoting equal opportunities for women and men, non-discrimination and respect of privacy in processing personal data.

Pursuant to Legislative Decree dated 30 June 2003, n. 196 (Personal data protection code), personal data supplied by candidates will be processed at the INAF – Osservatorio Astrofisico di Catania and handled for competition purposes and any eventual procedures concerning the awarding of research grants for the conducting of research activities.

Candidates are entitled to the rights stated in the decree mentioned above regarding access to personal data, its modification, updating, integration, cancellation or regarding inaccurate, incomplete or illegally-collected data, as well as reserving the right to oppose any use of the data other than the institutional purposes stated above.

Responsible of the personal data is the Director of INAF – Osservatorio Astrofisico di Catania.



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For what not explicitly mentioned in this announcement, the INAF – Osservatorio Astrofisico di Catania shall act in compliance with the regulations in force concerning Italian public selection procedures, when applicable by analogy.

Catania, 22/07/2014

Signed: The Director  
*(Dr Grazia Maria Umana)*