



PURCHASE CONTRACT No.:114/OVZ/PJ/2021

I. CONTRACTING PARTIES:

BUYER: **PALACKÝ UNIVERSITY OLOMOUC**
a public college established by Act No. 111/1998 Coll., on Higher Education Institutions and on Amendments to Certain Acts (Higher Education Act), as amended
Office: Křížkovského 511/8, 771 47 Olomouc, Czech Republic
Rector: prof. MUDr. Martin Procházka, Ph.D.
Person authorized to act in technical matters:



Ident. no.: 619 89 592
Tax Ident. no.: CZ 619 89 592
Bank contact:
Account no.:

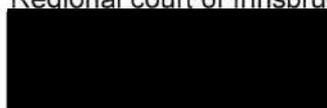


(hereinafter referred to as "Buyer")

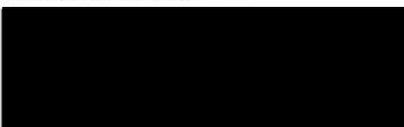
and

SELLER: **Alpine Quantum Technologies GmbH**
Office: Technikerstrasse 17/1, A-6020 Innsbruck, Austria
Registration in Companies Register: Commercial register Number: 484886 v
Regional court of Innsbruck, Austria

Statutory body:
Person authorized to act in contractual matters:
Person authorized to act in technical matters:



Ident. no.: 484886 v
Tax Ident. no.: ATU72971929
Bank contact:
Account no.:
IBAN:
SWIFT/BIC:



(hereinafter referred to as "Seller")

are closing on the bellow stated day, month and year according to provision of Section 2079 of the Act no. 89/2012 Coll., Civil Code, as amended this purchase contract (hereinafter referred to as "Contract"). The Buyer and the Seller enter into this Contract due to the fact that the Seller's bid for delivery of the subject of performance hereof has been selected by the Buyer as the best bid in the tender called „Three-dimensional linear ion trap“ prior to entering into this Contract.



II. Subject of the fulfillment

1. The Seller undertakes, under this contract, to deliver to the Buyer Three-dimensional linear ion trap, together with all the accessories (hereinafter referred to as the "Goods") and in accordance with the technical specifications mentioned in the Seller's offer dated 10th May 2021, that is an integral part of this Contract as its Annex no. 1. The Seller is not entitled to deliver Goods in larger quantity as stated in Section 2093 Civil Code. Both parties to this Contract agreed that the application of provision Section 2099(2) Civil Code be excluded and thus will not apply.

2. The Seller hereby undertakes to surrender the Goods specified in Annex no. 1 to this Contract to the Buyer and allow him to acquire title to it, and to provide the warranty service under the conditions stipulated by this contract.

3. The Buyer agrees to take over the Goods and pay the Seller the purchase price in the way and on the day agreed in this Contract.

4. Part of the delivery of the subject of the Contract is transport and delivery of legal documents.

5. The Seller declares pursuant to Section 2103 Civil Code, that the Goods is without any faults or defects.

6. The Goods shall be fully functional without any additional costs or expenditures necessary to be paid by the Buyer.

III. Term and place of delivery

1. The Seller undertakes to deliver goods to the place of delivery, including the delivery of all legal documents to the goods, no later than 120 days after the effective date of this Contract.

2. Place of delivery: Faculty of Science, Palacký University Olomouc, Department of Optics, 17. listopadu 12, 771 46 Olomouc, Czech Republic. Person authorised to take over the delivery on the basis of a handover protocol: [REDACTED], or a person authorised by him to take over the Goods.

3. Both parties agreed, that Section 2126 and Section 2127 Civil Code on self-help sale will be excluded and thus shall not be applicable in the case of delay in take-over of the Goods by the Buyer.

IV. Purchase price

1. The purchase price is set by an agreement of the contracting parties under this contract the purchase price of **73 000** EUR (without VAT).



2. The purchase price is set as fixed price, the highest acceptable and maximal, covering all the costs related to the supply of the Goods (in particular the transport to the place of delivery, insurance, customs duties, fees, licence fees and copyrights, delivery of all legal documents to the goods, the warranty service) as well as profit of the Seller connected with the delivery. A change in the purchase price is only possible and only on the assumption that changes in value added tax rates will occur after the conclusion of this Contract.

3. The Seller takes the responsibility for the fact, that the VAT rate at the time of invoicing is stipulated in compliance with the legislation.

V. Payment terms

1. The payment for the supply will be made on the basis of a due tax document (invoice) containing all relevant particulars, within a maturity date of 30 days following the day of its delivery to the Buyer. The invoice will be issued by the Seller not sooner than after delivery of the Goods, delivering the documents required by law, relevant documentation and instruction to use. The document on a due fulfillment of obligations by the Seller specified in the preceding sentence is a dated handover protocol signed by authorized persons of both contracting parties.

2. The invoice issued by the Seller must include all tax document prerequisites in accordance with Act No. 235/2004 Coll. on value added tax, as amended and the prerequisites of a commercial deed pursuant to Section 435 of the Civil Code as well as identification of the Contract, on the basis of which the fulfilment has been provided. The Seller shall affix the invoice with the stamp and signature of the person authorised to issue the invoice and with number of this Contract.

3. If the invoice issued by the Seller does not contain any of the obligatory particulars or if the Seller incorrectly invoices the price or the VAT, the Buyer is entitled to return such invoice to the Seller before the expiration of its maturity date for correction, stating the reason of its returning. The Seller shall correct it by issuing a new invoice. The initial maturity date stops running on the day of sending the incorrect invoice to the Seller and a new maturity date starts running on the day of the delivery a new invoice to the Buyer.

4. The contracting parties agree that the obligation to pay the purchase price is fulfilled on the day when the given sum is sent from the Buyer's account to the Seller's account given above in this contract.

5. The Seller shall ensure proper and timely fulfillment of financial obligations to its subcontractors, where proper and timely fulfillment is considered full payment of invoices issued by the subcontractor for performances provided to the seller to fulfill obligations under the contract, always no later than 30 days after receiving payment from the Buyer for specific performance (if the due date of the invoice issued by the subcontractor has not occurred before). The Seller undertakes to transfer the same obligation to other levels of the supply chain and to oblige its subcontractors to fulfill and spread this obligation also to lower levels of the supply chain. The Buyer is entitled to request the submission of documents on payments



made to subcontractors and contracts concluded between the Seller and subcontractors. Failure to fulfill the obligations of the Seller under this agreement of the contract is considered a material breach of contract with the possibility of withdrawal by the Buyer from this contract. Withdrawal from this contract is in such a case effective by delivery of a written notice of withdrawal from the contract to the other party.

VI. The Seller's responsibility for defects

1. The Seller provides to the Buyer a warranty for the quality of the Goods according to Section 2113 and following of the Civil Code within the period of 12 months since the day of signing of the protocol according to article V.(1) of this Contract.

2. During the guaranty period, the respective defects shall be removed within 60 calendar days at the latest after the day of the start of the defect notification (by email, letter form, fax), unless otherwise agreed in writing by persons authorized by contracting parties for technical matters. The seller upon the agreeing the suggested procedure, signs the protocol together with the person authorized in technical matters for the buyer, shall take over the defective part of the goods for repair.

The contracting parties have agreed that Section 2110 Civil Code shall not apply. The buyer is entitled to withdraw from the Contract for the defects or to require the delivery of new Goods irrespective of the fact that the Goods might be returned to the Seller or possibly return the Goods in the quality as it was received by the Buyer.

3. The Seller undertakes to perform the free of charge full service of the Goods delivered in the details of this Contract for the entire duration of the warranty period. The costs of performing the full-service warranty of delivered Goods are part of the purchase price.

VII. Contractual penalty

1. In the case of Seller's delay with delivery of any part of the Goods according to the period stated in the article III.(1) of this Contract, the Buyer will be entitled to a contractual penalty amounting 50 EUR for each started day of the delay with its delivery.

2. The seller undertakes to pay to the buyer contractual penalty amounting to 50 EUR for each starting day after the lapse of time for repair in the warranty period in compliance with this Contract for each particular case.

3. The parties have agreed that arranging the contractual penalty pursuant to this article does not affect the right of the Buyer for the compensation of the damages arisen from the breach of the duty strengthened in this Contract. That means that contractual parties have agreed on exclusion of application of Section 2050 Civil Code.

4. The maturity date of the charged contractual penalties is 30 days from the day of delivery of their written statement to the given contracting party and the day of payment means the day of debiting the contractual penalty from the account of the given contracting party to the account mentioned in the statement of the contractual penalty.



5. The Buyer is entitled to include the contractual penalties in the Seller's claim of the purchase price according to Section 1982 and following of the Civil Code. The Buyer and the Seller's claims are canceled in the amount in which they are covered, and these effects occur at the moment when the Buyer delivers a statement of netting to the Seller.

VIII. Final provisions

1. The Buyer reserves the right to publish the contents of the concluded Contract and its annexes.

2. Seller is a person obliged to cooperate in performing financial control within the meaning of Section 2(e) of Act No. 320/2001 Coll., on Financial Control in Public Administration, as amended. This obligation is extended to Sellers subcontractors, participating on fulfilling the subject of this contract.

3. The contracting parties expressly agreed that all the rights and obligations under this Contract, as well as the rights and obligations arising from this Contract, will be settled in accordance with the appropriate provisions of the code no. 89/2012 Coll., Civil Code, as amended and the Czech law system.

4. The provisions of this contract are separable. If any part of an obligation under this contract is or becomes invalid or non-enforceable, this shall not affect the validity and the enforcement of other obligations under this Contract and the contracting parties undertake to replace such invalid or non-enforceable part of obligation with a new, valid and enforceable part of the obligation, the subject of which will correspond at the best to the subject of the original obligation. If the Contract does not contain a provision which would be justifiable for the determination of the rights and obligations, the contracting parties will make all the efforts to implement such provision in the Contract.

5. The contracting parties may modify or complete this Contract only in the form of written amendments numbered in the increasing order, expressly declared as amendments to this Contract and signed by the authorized representatives of the contracting parties.

6. The Buyer is entitled in accordance with Section 2001 Civil Code to withdraw from this Contract for its substantial breach by the Seller; the substantial breach means:

6.1 the delay of the contractually determined term of delivery of the subject of the Contract by more than 10 days,

6.2 a failure to observe the technical specifications of the Goods mentioned in the Seller's offer.

6.3 delay of the Seller in repairing and removing the defects by more than 10 days.

The withdrawal from the Contract shall be made in a written form and becomes effective on the day of the delivery of the written notice to the other contracting party.

7. The Seller is not entitled to cede his rights and obligations under this Contract to a third person without the Buyer's approval.



8. As regards the delivery of shipments relating to the performance of this Contract sent by the Seller with the use of the postal service operator, Section 573 of the Civil Code does not apply.

9. The Seller acknowledges that this Contract, including all its Annexes, is subject to mandatory disclosure pursuant to Act No. 340/2015 Coll., On the Special Conditions for the Effectiveness of Certain Contracts, the Publication of such Contracts and the Register of Contracts, as amended.

10. This Contract shall enter into force on the date of its signature by the last party to this Contract and effective on the date of publication of this Contract by the Buyer in the register of contracts pursuant to Act No. 340/2015 Coll., On the Special Conditions for the Effectiveness of Certain Contracts, the Publishing of such Contracts and the Register of Contracts, as amended.

11. Items listed in the Annex 1 of this Contract will be provided with mandatory publicity by Buyer.

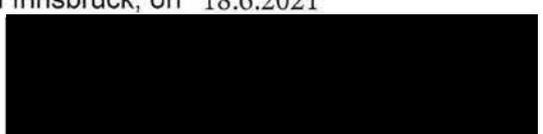
12. This Purchase Contract is made in four copies considered as originals, signed by the authorized representatives of the contracting parties; the Buyer will obtain three copies and the Seller will obtain one copy.

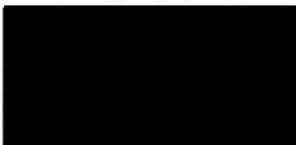
13. Seller guarantees promptness of service in the warranty period, ie. travel to the place of installation, conducting detection of defects and discussing the necessary service operations with person authorized by the Buyer to act in technical matters, during warranty period no later than within 10 working days from the day of report of the defect, by visit from service technician. During the warranty period, the respective defects shall be removed within 30 working days at the latest after the day of the start of the defect removal, unless otherwise agreed in writing by persons authorized by contracting parties to act in technical matters. The seller is obliged to provide repairs in the place of delivery, shall that be technically impossible, seller shall take over the „faulty part“ of the goods in order to repair it after signing a written protocol, stating suggested procedure agreed by the person authorised to act in technical matters for the contracting person. The contracting parties have agreed that § 2110 Civil Code shall not apply; the buyer is therefore entitled to withdraw from the contract for defects or demand the delivery of new goods, regardless of whether he can return the goods, or return them in the condition in which they were received.

14. The following Annexes form an integral part of this Contract:
Annex 1 – Seller's offer dated **10th May 2021**

In Olomouc, on **25. 06. 2021**

.....
prof. MUDr. Martin Procházka, Ph.D.
rector

In Innsbruck, on 18.6.2021






Alpine Quantum Technologies GmbH
Sales Office

Innsbruck, 25th May 2021

Attn: **Palacký University Olomouc,**
Křížkovského 511/8, 771 47 Olomouc, Czech Republic
Contact: [REDACTED]
Phone: [REDACTED]

Subject: Three-dimensional linear ion trap

In response to the tender, for a three dimensional linear ion trap, AQT is pleased to respond positively to the requirement.

As stated in the tender documentation, the required "three-dimensional linear ion trap must simultaneously fulfil the following minimal requirements:"

General properties

- it must allow for simultaneous and temporarily stable localization of calcium and barium ions
- it must allow for trapping of calcium ions with secular motional frequencies of their harmonic motion higher or equal to 1 MHz for axial motion and higher or equal to 3 MHz for radial directions of motion
- the capacitance of the radial electrodes has to be less than or equal to 20 pF
- trap has to allow for temporally stable trapping of long linear ion strings with number of ions greater than or equal to 20
- the heating rate of a trapped ion must be less than or equal to 10 phonos/second for the above mentioned minimal secular motional frequencies of a calcium ion
- it must contain an ablation target with ⁴⁰Ca isotope and must allow for the simultaneous employment of an atomic oven
- a mechanical attachment of the atomic oven must accept ovens of a tubular shape with the diameter greater than or equal to 3 mm
- the trap must be delivered in the final assembled form which does not require the user to adjust its alignment

Trap geometry must fulfill:

- it must contain four radial electrodes and form a quadrupolar potential
- it must contain two pairs of compensation electrodes for the minimization of radial micromotion
- it must contain dielectric spacer for precise mutual positioning of electrodes and mechanical mount for the attachment of the whole assembly to the vacuum chamber
- the mutual parallelism of the radial electrodes must correspond to the angle of less than or equal to 0.2 degrees

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- the electrode surface roughness must be less than or equal to $Ra < 1$ micron
- the minimal distance between the trapped ion and the radial electrode must be greater than or equal to 0.5 mm

Materials employed for the trap and its mechanical mount must fulfill:

- the coefficients of their thermal expansion must match sufficiently to allow for the employment at cryogenic temperatures of 77 K and also allow for the bakeout at 475 K
- must be ultra-high-vacuum environment compatible

Optical access for the detection and excitation of ions must fulfill:

- optical access for ion addressing with tightly focused laser beam (addressing access) must have a numerical aperture (NA) greater than or equal to 0.5
- must include high optical access in the direction opposite to the addressing optical access with NA greater than or equal to 0.4
- must include two optical ports for laser excitation along the trap axis, with each corresponding to the NA greater than or equal to 0.06
- must allow for observation of ions in the two ports with directions perpendicular to the addressing and axial directions, each with an NA greater than or equal to 0.2
- must include at least one optical access for laser excitation of ions, where angles between its direction and directions of all three normal modes of motion are greater than or equal to 30 degrees

AQT GmbH asserts that the linear Paul trap, the Pine, meets or exceeds the requirements of this tender.

In support of this, AQT GmbH submit the document "Pine_Trap_Spec_Sheet_V1.1_H1.2" entitled "AQT Pine Trap Specification Sheet Version: 1.1 - Model: PT-0130-v1.2"